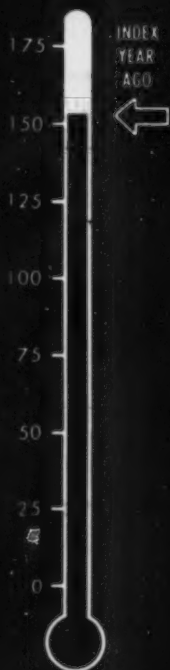


# BUSINESS WEEK



Engelhard of Engelhard Industries: Taking the "precious" out of precious metals (page 90)

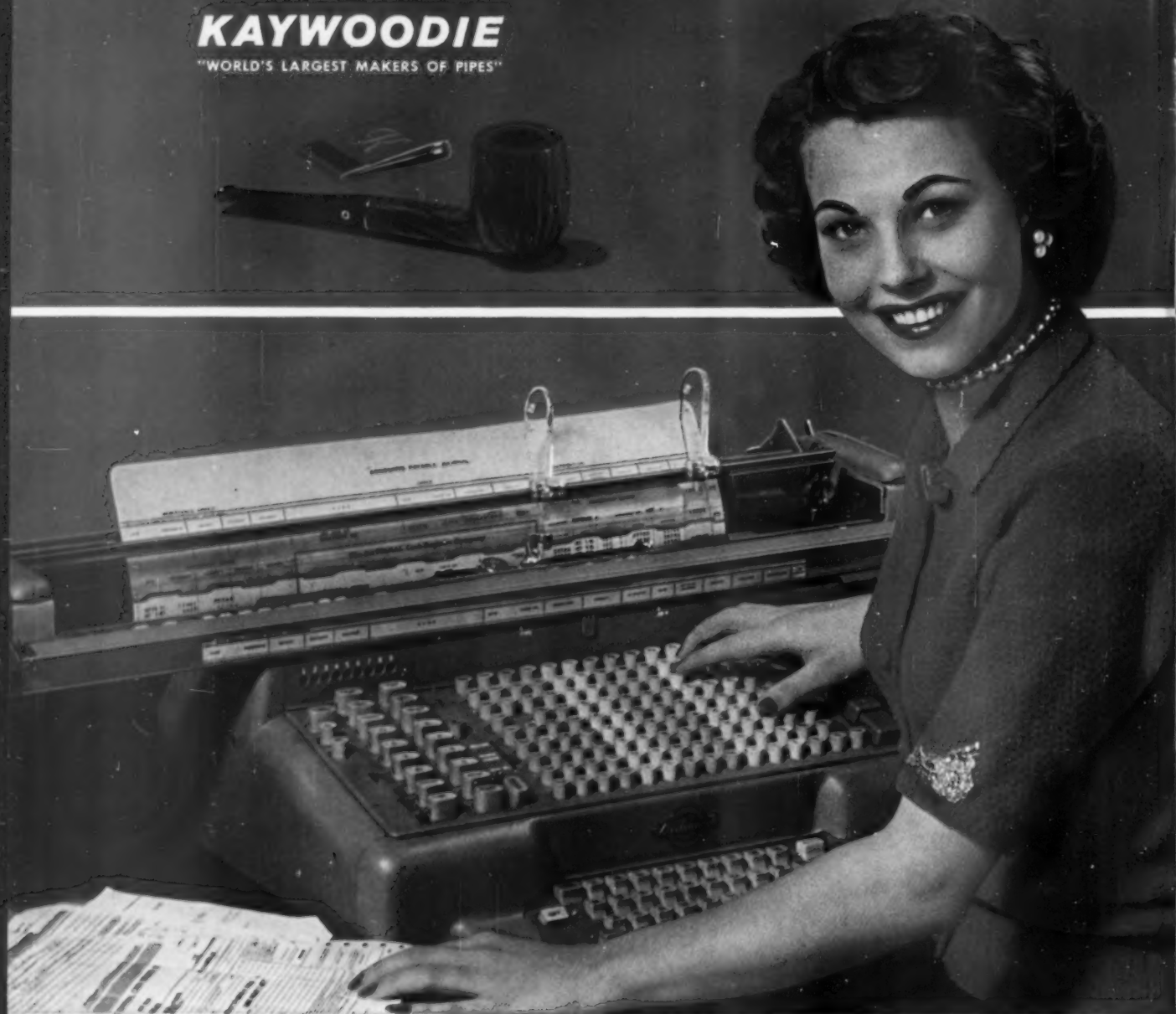
A MCGRAW HILL PUBLICATION

FEB. 2, 1957

E. B. POWELL  
UNIVERSITY MICROFILMS  
315 N. 4 ST.  
ANN ARBOR MICH

# KAYWOODIE

"WORLD'S LARGEST MAKERS OF PIPES"



**"National Accounting Machines save us 110% a year  
on our investment."**

—KAYWOODIE PIPES, INC., New York

"We estimate that our National Accounting Machines save us 110% annually on our investment.

"Their flexibility makes them adaptable, in a matter of seconds, to a variety of accounting jobs. Thus they can be used to level out the work load, and make each day's work a completed job.

"Their simplicity enables us to train operators quickly. Their many automatic features save valuable time. And their ease of operation makes our operators happier, because they now do their work with less effort."

*Herbert W. Schloss*

President, Kaywoodie Pipes, Inc.

In your business, too, National machines will pay for themselves with the money they save, then continue savings as annual profit. Your nearby National man will gladly show how much you can save—and why your operators will be happier.

**THE NATIONAL CASH REGISTER COMPANY, DAYTON 9, OHIO**  
989 OFFICES IN 94 COUNTRIES

**National**

ACCOUNTING MACHINES  
ADDING MACHINES • CASH REGISTERS



GENERAL BUSINESS

	Page
BUSINESS OUTLOOK	19
WASHINGTON OUTLOOK	41
INTERNATIONAL OUTLOOK	103
PERSONAL BUSINESS	125
THE TREND	144
FIGURES OF THE WEEK	2
CHARTS OF THE WEEK	140
READERS REPORT	5

<b>AUTO INDUSTRY CLOSES ITS RANKS.</b> After a stormy year, the dealer franchise system is stronger than ever. You can expect dealers to exercise their new-found influence.....	25
<b>LAKE CARRIERS GET SEAWAY JITTERS.</b> They worry about foreign ships grabbing away Great Lakes trade.....	27
<b>DEBATE WITH CEA.</b> Congressional committee questions President's economic advisers on adequacy of the Administration's policies.....	28
<b>DISPUTES HOBBLE THE OIL LIFT.</b> Deliveries to Europe fall below early estimates, but proposals for remedying the situation only produce wrangles.....	29
<b>U. S. TAKES STOCK OF WELL-BEING.</b> President's Economic Report maps progress of Americans toward goal of the "good life".....	30
<b>WHO'S AHEAD IN RACE FOR ARMS.</b> Sen. Symington paints a bleak picture of U. S. military preparedness.....	32
<b>LE TOURNEAU PLANS A COMEBACK.</b> Pioneer in earthmoving equipment field aims to get back into the competition.....	33
<b>TWO WAYS TO VIEW GOVERNMENT.</b> Gap between Eisenhower and Humphrey doesn't mean an open split but a divergence in point of view.....	34
<b>CONGRESS MAY JOIN IN FISCAL STUDY.</b> The White House isn't adverse to a compromise bill adding lawmakers to Monetary Commission.....	36
<b>IN BUSINESS.</b> News about ore price boost, reactor plan delay, curb on bank holding companies, Supreme Court rulings.....	38

THE DEPARTMENTS

BUSINESS ABROAD:

<b>Exporting Economic Advice.</b> Private economic consultants are blooming as foreign governments call for help in straightening out their financial affairs.....	80
<b>Reds Woo India.</b> Zhukov on good will tour to bolster Soviet's role.....	86
<b>In Business Abroad.</b> News about Chrysler in Venezuela, U. S. farm exports, Brazil-Poland steel deal, Bosch's branching out, Swiss screams on watch tariff.....	88

COMPANIES:

<b>Business in a Platinum Setting.</b> Engelhard Industries, precious metals fabricator, is sitting pretty as the glamor metal moves into the factory.....	90
--	----

ECONOMICS:

<b>Hero, Villain, or Specter?</b> Businessmen and economists can't quite pin down the role of savings in the national economy. Here's a guide through the confusion...	96
--	----

FINANCE:

<b>What's Become of Paper Shares?</b> Once a leader, paper group is now an also-ran.	58
<b>Bankers Ask Fed for Some New Rules.</b> They want the financial agency to lower its reserve requirements for member banks.....	64

GOVERNMENT:

<b>In Washington.</b> News about ruling on atomic power project, U. S. liability in forest fires, auto insurance inquiry, Crowell-Collier.....	107
--	-----

LABOR:

<b>Fuss in the New AFL-CIO Family.</b> Honeymoon over, unified labor talks over its internal troubles.....	109
<b>Reappraising Atomic Situation.</b> Government urged to hand over job of settling disputes at atomic plants to labor and management.....	113
<b>Looser Reins.</b> Decisions indicate Supreme Court wants labor and management to bargain with a maximum of freedom.....	114
<b>In Labor.</b> News about UAW's drive for engineers, Ohio bill for state power in labor disputes, House committee, suit against UMW.....	117

MANAGEMENT:

<b>Business Sits for Its Portrait.</b> In most cases, the likeness is flattering, but objective company histories are becoming more common.....	129
---	-----

MARKETING:

<b>Paris Says Oui Oui to Discount House.</b> Cut-rate store is a break with French tradition, but Parisians seem to love it.....	46
--	----

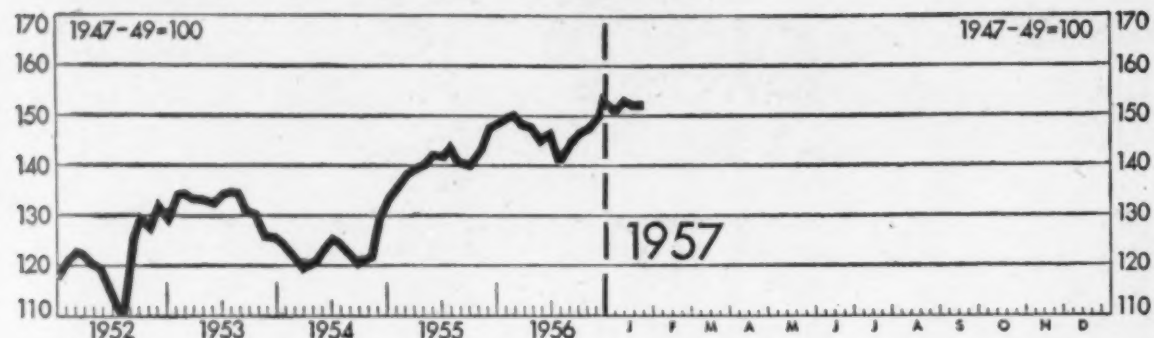
THE MARKETS:

<b>Making Customers Cry for It.</b> Cummins Engine Co. gets its diesels into trucks and highway machinery by selling ultimate users over the heads of equipment assemblers.....	51
<b>In Stocks, Anybody Can Err.</b> Since 1956, the pro investors have seen their favorites tumble.....	119
<b>Wall St. Talks</b> .....	120

PRODUCTION:

<b>Grooming Transistors to Crack the Big Volume Markets.</b> Producers race to boost 1957 output and build for half-billion-unit sales by 1965.....	66
<b>Two Days to Build a Giant Dome.</b> Aluminum panels of Kaiser's Waikiki hall were put together so fast that the brass missed the construction show.....	75
<b>New Products</b> .....	77

# FIGURES OF THE WEEK



## BUSINESS WEEK INDEX (chart)

1946 Average	Year Ago	Month Ago	Week Ago	5 Latest Week
91.6	150.7	153.0	†152.9	*152.9

### PRODUCTION

Steel ingot (thous. of tons).....	1,281	2,444	2,490	12,472	2,485
Automobiles and trucks.....	62,880	169,263	119,276	†177,778	179,306
Engineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.).....	\$17,083	\$78,614	\$72,303	\$57,132	\$55,832
Electric power (millions of kilowatt-hours).....	4,238	11,512	11,196	12,556	12,410
Crude oil and condensate (daily av., thous. of bbls.).....	4,751	6,994	7,392	7,431	7,396
Bituminous coal (daily av., thous. of tons).....	1,745	1,757	1,863	†1,708	1,647
Paperboard (tons).....	167,269	296,802	222,250	278,737	282,631

### TRADE

Carloadings: miscellaneous and L.C.I. (daily av., thous. of cars).....	82	70	68	67	65
Carloadings: all others (daily av., thous. of cars).....	53	47	49	47	45
Department store sales index (1947-49 = 100, not seasonally adjusted).....	90	98	265	107	100
Business failures (Dun & Bradstreet, number).....	22	284	174	278	258

### PRICES

Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100).....	311.9	408.8	441.6	435.5	432.1
Industrial raw materials, daily index (BLS, 1947-49 = 100).....	††73.2	99.5	99.8	97.5	96.9
Feedstuffs, daily index (BLS, 1947-49 = 100).....	††75.4	76.3	82.5	83.8	83.4
Print cloth (spot and nearby, yd.).....	17.5¢	20.5¢	18.8¢	18.5¢	18.5¢
Finished steel, index (BLS, 1947-49 = 100).....	††76.4	155.8	169.9	†171.1	171.6
Scrap steel composite (Iron Age, ton).....	\$20.27	\$50.83	\$63.50	\$57.83	\$55.50
Copper (electrolytic, delivered price, E & MJ, lb.).....	14.045¢	43.880¢	35.925¢	35.890¢	35.905¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$1.97	\$2.22	\$2.36	\$2.36	\$2.36
Cotton, daily price (middling, 1 in., 14 designated markets, lb.).....	**30.56¢	35.50¢	33.17¢	33.42¢	33.56¢
Wool tops (Boston, lb.).....	\$1.51	\$1.77	\$2.20	#	\$2.21

### FINANCE

90 stocks, price index (Standard & Poor's).....	135.7	346.5	368.9	355.2	355.7
Medium grade corporate bond yield (Baa issues, Moody's).....	3.05%	3.59%	4.44%	4.49%	4.48%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate).....	¾-1%	3%	3½%	3½%	3½%

### BANKING (Millions of Dollars)

Demand deposits adjusted, reporting member banks.....	††45,820	58,735	58,214	58,523	58,296
Total loans and investments, reporting member banks.....	††71,916	85,209	87,925	86,503	85,583
Commercial and agricultural loans, reporting member banks.....	††9,299	26,211	31,313	30,595	30,349
U. S. gov't guaranteed obligations held, reporting member banks.....	††49,879	29,475	26,654	26,823	26,330
Total federal reserve credit outstanding.....	23,888	25,480	27,842	25,954	25,636

### MONTHLY FIGURES OF THE WEEK

McGraw-Hill Indexes of New Orders (1950 = 100)	1946 Average	Year Ago	Month Ago	Latest Month
New orders for machinery, except electrical.....				
Construction & mining machinery.....				
Engines & turbines.....				
Pumps & compressors.....				
Metalworking machinery.....				
Other industrial machinery.....				
Office equipment.....				
New contracts for industrial building.....				

\* Preliminary, week ended January 26, 1957.  
† Revised.

†† Estimate.  
‡‡ Ten designated markets, middling 1½ in.

# Date for 'Latest Week' on each series on request.  
\* Insufficient trading to establish a price.  
N. A. Not available.

THE PICTURES—Hans Basken—129, 130; Jon Brenneis—25; Cummins Engine Co.—51; Grant Compton—27; Martin Harris—66, 67; I.N.P.—32, 34 (lt.); Klein & Saks—80; Russell Melcher—46, 47; Perkins-Elmer Corp.—77; Gene Pyle—cover, 90, 91; Warner Stoy—75; W.W.—34 (rt.).

## B.F. Goodrich report:



### Hose swallows chips off the granite block

#### *B. F. Goodrich improvements in rubber brought extra savings*

**Problem:** That workman is cutting and finishing a granite block for a building front. As he chisels and grinds, the chips and dust are collected by the hose and carried away. Fine, except that the company was throwing hose away every year or so. The sharp, destructive granite chips wore holes through every kind of rubber hose tried.

**What was done:** A B.F. Goodrich man heard about the trouble, and recommended a hose, specially developed by B.F. Goodrich to stand this rough treatment. It is made with a special lining of the toughest, wear-resisting rubber known. It is so tough that, on many

jobs, this rubber outlasts the hardest steel 10 to 1.

**Savings:** The B.F. Goodrich suction hose was tried. It has now given more than 5½ years' service, and shows no signs of wearing out. In fact, the plant engineer says he expects several more years' use from the hose, and he's replacing all other brands with B.F. Goodrich.

**Extra benefits:** In addition to making this hose stand more abuse, B. F. Goodrich engineers have also made it flexible, easy to handle. A coil of round steel wire, buried in the hose, keeps it from crushing, kinking or collapsing.

**Where to buy:** Your B.F. Goodrich distributor has exact specifications for the B.F. Goodrich hose described here. And, as a factory-trained specialist in rubber products, he can answer your questions about *all* the rubber products B.F. Goodrich makes for industry. B. F. Goodrich Industrial Products Co., Dept. M-870, Akron 18, Ohio.

**B.F. Goodrich**  
**INDUSTRIAL PRODUCTS**



They should've thought of this years ago—a painless way to learn arithmetic! With the help of toy animals, lucky kids nowadays actually have fun learning how to add and subtract.

When a feature about the latest teaching techniques appeared in a recent issue of PARADE, it stopped 7 out of 10 readers—who stayed to learn more.

Keeping readers entertained and informed week after week is something that PARADE does so well (and so often) that it's become the best read magazine in print.

To advertisers this means twice as many readers for their dollar as any of the big weekday magazines.

It all adds up; to keep sales on the upswing . . . to win friends and influence dealers . . . PARADE has what it takes!



**PARADE...THE SUNDAY MAGAZINE SECTION OF 56 FINE NEWSPAPERS COVERING SOME 2600 MARKETS...WITH MORE THAN 15 MILLION READERS EVERY WEEK**



EDITOR & PUBLISHER Elliott V. Bell

MANAGING EDITOR Kenneth Kramer

ASSISTANT MANAGING EDITOR Robert B. Colborn

ASSOCIATE MANAGING EDITORS John L. Cobbs, Peter French, Eugene Miller  
SENIOR EDITORS

Clark R. Pace, Merlyn S. Pitzele, Howard Whidden

## DEPARTMENTS

Business Outlook: Clark R. Pace, *Editor*

Economics: Leonard Silk, *Editor*

Finance: William McKee Gillingham, *Editor*; Albert C. Lasher

Foreign: Howard Whidden, *Editor*; Sol Sanders, Paul Finney

Industrial Production: Theodore B. Merrill, Jr., *Editor*; C. Peter Buckley

Labor: Merlyn S. Pitzele, *Editor*; Edward T. Townsend, Robert R. Reichenbach

Management: Lee Geist, *Editor*; Edward McCreary

Marketing: Richard L. Waddell, *Editor*; Cora Carter, Jack E. Patterson

Money & Credit: M. J. Rossant, *Editor*

Personal Business: Joseph L. Wiltsee

Regions: Werner Renberg, *Editor*

Research: Jane H. Cutsaia, *Editor*

Statistics: Elsa Denno

Staff Writers: John H. Maughan, Brenton Welling, Jr.

Illustration: Richard A. Wolters, *Editor*; Robert Isear, *Pictures*; Louis H. Dufault, *Graphics*; Grant

Compton, Jack H. Fuller, Herbert F. Kratochvil, Jomary Mosley, Elizabeth Pollock, Arthur Richter,

Joan Sydlow

Library: Dorothy Roantree, *Librarian*; Jane G. Raczka

## NEWS EDITORS

T. B. Crane (*Senior News Editor*), Jeanne A. Bernhardt, Robert F. Deed, Lawrence H. Odell,  
Doris I. White

## EDITORIAL ASSISTANTS

Mary T. Beckerle, Edward J. Burgess, Jr., Jean Drummond, Marilyn Holmes, Kathleen Kundel, Irwin  
Lainoff, Olive L'Heureux, Ann Woods

## McGRAW-HILL ECONOMICS STAFF

Dexter M. Keezer, *Director*; Theodore C. Boyden, William H. Chartener, Douglas Greenwald,  
Robert P. Ulin

## U.S. & CANADIAN NEWS SERVICE

Atlanta Bureau: Frances Ridgway

Boston Bureau: Norman Kotker, *Manager*

Chicago Bureau: Merlin H. Mickel, *Manager*; Joanne Sponsler

Cleveland Bureau: Robert E. Cochran, *Manager*

Detroit Bureau: William Kroger, *Manager*; Keith G. Felcyn, Brooke Dixon

Houston Bureau: Normand DuBeau, *Manager*; George W. New

Los Angeles Bureau: Thomas M. Self, *Manager*; James P. Roscow, Margaret W. Hayes

Milwaukee Bureau: Charles M. Garvey, *Manager*; Kathleen C. Horan

Philadelphia Bureau: W. B. Whichard, Jr., *Manager*; Esther A. Schultz

Pittsburgh Bureau: Richard N. Larkin, *Manager*; John K. Fockler, Elinore S. Thomas

San Francisco Bureau: Richard Lamb, *Manager*; Margaret J. Scandling

Toronto Bureau: John D. Harbron, *Manager*; Jean Ross-Skinner

Washington Bureau: George B. Bryant, Jr., *Manager*; Alan E. Adams, Glen Bayless, Roy Calvin,

Ernest Conine, John C. L. Donaldson, Jay Flocken, Boyd France, Sam Justice, Arthur J. Kraft,

Donald O. Loomis, Gladys Montgomery, Arthur L. Moore, Seth Payne, Morton A. Reichel, V. Craig

Richter, Caroline Robertson, Vincent Smith

Correspondents: Akron, Albany, Austin, Baltimore, Birmingham, Buffalo, Calgary, Charleston, Char-

lotte, Cincinnati, Columbus, Dallas, Denver, Des Moines, Fort Worth, Greensboro, Hartford, Jack-

sonville, Kansas City, Knoxville, Little Rock, Louisville, Memphis, Miami, Minneapolis, Montreal,

Nashville, New Orleans, Omaha, Orono, Ottawa, Phoenix, Portland (Ore.), Providence, Richmond,

Rochester, Salt Lake City, San Diego, Seattle, St. Louis, Syracuse, Toledo, Tulsa, Vancouver, Winni-

peg, Worcester, Honolulu

## McGRAW-HILL WORLD NEWS SERVICE

Editor: John Wilhelm; Beirut: O. M. Marashian; Bonn: Gerald W. Schroder, Thomas Berendt, Silke

Brueckler; London: William J. Coughlin, John Tunstall, Morrie Hiltzer, Edith Walford; Mexico

City: Jack Kearney; Paris: Robert E. Farrell, Helen Avati; Rio de Janeiro: Peter Weaver; Tokyo:

Dan Kurzman

ASSOCIATE PUBLISHER Bayard E. Sawyer

ADVERTISING MANAGER John M. Holden

BUSINESS MANAGER Richard E. McGraw



BUSINESS WEEK • FEBRUARY 2, 1957 • NUMBER 1431

(with which are combined The Analyst and the Magazine of Business) Published weekly by McGraw-Hill Publishing Company, Inc. Executive, Editorial, Advertising, and Subscription Offices: McGraw-Hill Building, 330 West 42nd Street, N. Y. 36, N. Y. Publication Office, 99-129 North Broadway, Albany 1, N. Y.; entered as second class matter Dec. 4, 1936 at the Post Office at Albany, N. Y. under act of Mar. 3, 1879. Donald C. McGraw, President; Joseph A. Gerardi, Executive Vice President and Treasurer; John J. Cooke, Secretary; Nelson Bond, Executive Vice President, Publications Division; Ralph B. Smith, Vice President and Editorial Director; Joseph H. Allen, Vice President and Director of Advertising Sales; A. R. Venezian, Vice President and Circulation Coordinator. FOR SUBSCRIPTIONS, write to: Business Week, Subscription Service, 330 West 42nd Street, New York 36, N. Y. Subscriptions to Business Week are solicited only from management men in business and industry. Position and company connection must be indicated on subscription orders. Subscription rates: United States and possessions \$6 a year; \$12 for three years. Canada \$7 a year; \$14 for three years. Other Western Hemisphere countries and the Philippines, \$20 a year; \$40 for three years. All other countries \$25 a year; \$50 for three years. Single copies, 25c. Printed in U.S.A. ©Copyright 1957 by McGraw-Hill Publishing Co., Inc. All rights reserved.

## READERS REPORT

### All About Brainstorming

Dear Sir:

From what others phoned and wrote me about the article Brainstorming: Cure or Curse? (BW—Dec.29'56,p44), I expected it to be so defamatory that I should start suit.

Then, on Sunday afternoon January 6th, I put on my hair-shirt and read the piece. I found it far less libelous than anticipated.

The thing that nettles me most is the implication that I claim brainstorming to be a panacea. . . .

Then, too, I am quoted as saying, "Quantity is more important than quality." The nearest I have ever come to that has been to claim that quantity of ideas can help breed quality. And isn't this axiomatic?

. . . As your article stated, I feel that brainstorming has recently been over-publicized—to the detriment of the educational cause to which I am devoting nearly all of my time and a lot of my money.

ALEX F. OSBORN

PRESIDENT

CREATIVE EDUCATION FOUNDATION  
BUFFALO, N. Y.

Dear Sir:

You are to be commended for your astute handling of the topical craze. . . .

Although brainstorming may appear to be a fad, similar to Operations Research or Motivation Research, I feel strongly it is here to stay—in modified form. . . .

As to techniques that can be taught, "brainstorming" is only one—perhaps the best one. "Area thinking" and "attribute listing" are others. . . . Our own "Q-technique" is most appropriate to problems of development engineering, such as . . . developing automatic computer systems. . . .

J. C. DENTON

PSYCHOLOGICAL BUSINESS RESEARCH  
CLEVELAND, OHIO

Dear Sir:

I read with interest your somewhat critical article on brainstorming. . . . While . . . many of the common faults of brainstorming are pointed out, I think you were overly harsh on the technique. . . .

We don't feel that brainstorming is a panacea for anything, but of this much, I am sure: It builds people. I have seen the meetings actually change the personality and drive of individuals over a period



come down here this minute, Henry Jones!"



**Henry:** Martha. *Really!*

**Martha:** Don't "Martha Really" me!

**Henry:** This isn't like you, dear. After all, I left you with a thriving business and a secure . . .

**Martha:** Henry, did you remember to get in touch with the Man from Equitable?

**Henry:** I had a note in my pocket to call him.

**Martha:** He planned to get you, the lawyer, and the banker together to talk about a new kind of business insurance.

**Henry:** I know I wrote it down . . .

**Martha:** He wanted to show you how we would have money for inheritance taxes, without having to sell the business.

**Henry:** It was on a little piece of paper . . .

**Martha:** Well, Henry, we *didn't* have enough to pay the inheritance taxes. We had to sell the business for much less than it was worth.

**Henry:** I guess I never did call that Man from Equitable.

**Martha:** I guess you never did, Henry.

**Henry:** Terribly careless.

**Martha:** Terribly.

**Henry:** Not like me.

**Martha:** Not like you.

**Henry:** Now what did I do with that harp?

## Living Insurance for Business by Equitable



FREE BOOKLET

Equitable Life Assurance Society of the U.S.  
393 Seventh Avenue, New York 1, New York—Room 1807  
Please send me Equitable's new booklet which explains how Living Insurance can help solve many common business and tax problems.

NAME .....

FIRM .....

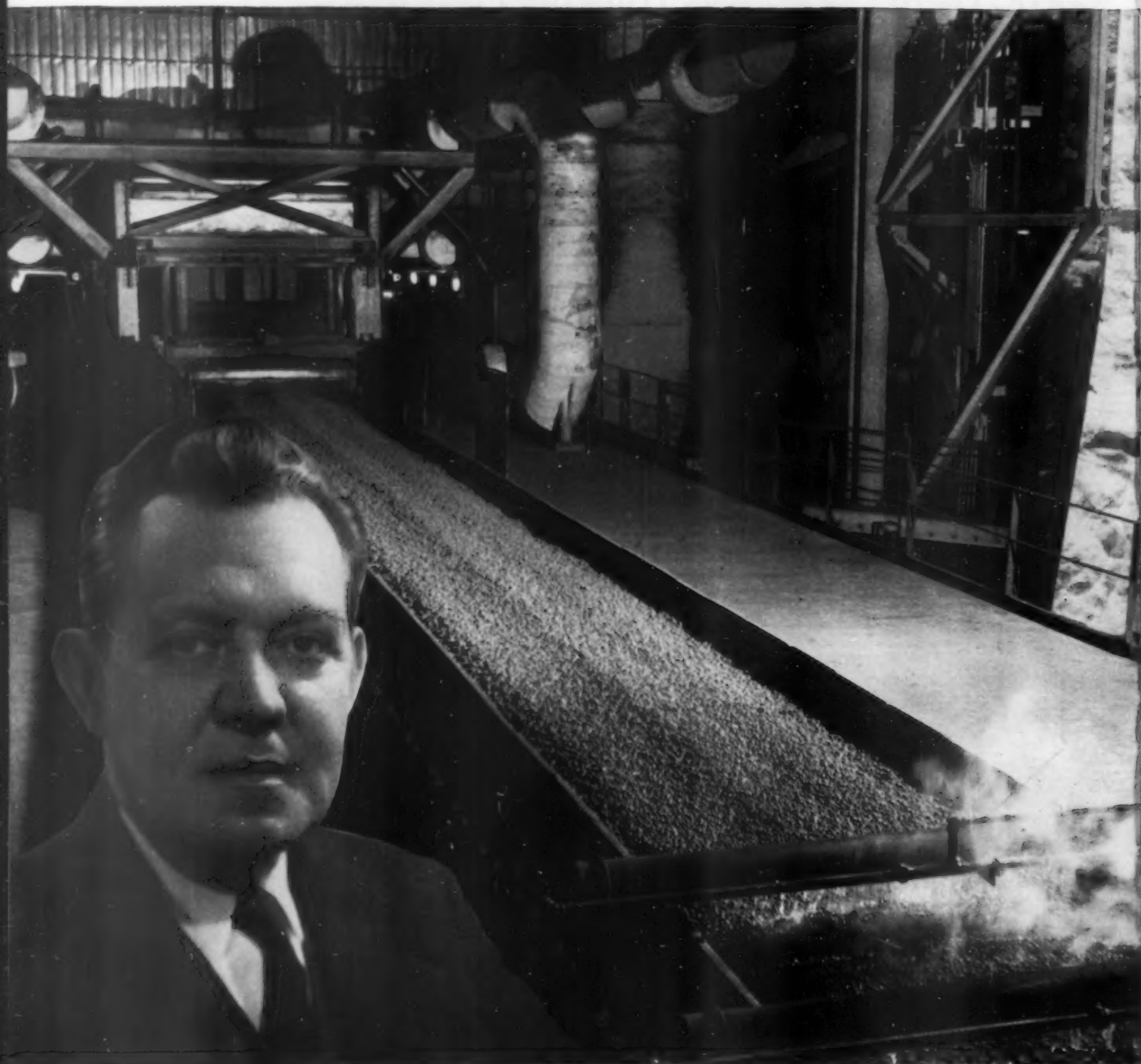
ADDRESS .....

CITY .....

STATE .....

104

# "Keeps growing pains out of a growing



**This sintering operation** is the heart of the pelletizing plant in a taconite processing plant—engineered jointly by Allis-Chalmers and Arthur G. McKee.

**Taconite**—the lean, hard rock of low iron content—is upgraded here to pellets containing 60% to 65% iron. Annual capacity: 4,000,000 tons.



# business"

**Mr. Henry E. Widdell,**

*President of Arthur G. McKee  
& Company of Cleveland says:*

"By employing an engineering and construction company, you take a short-term lease on a whole company—full of carefully selected, experienced, diversified engineers. Their function is to give you reliable, imaginative help in working out more efficient methods . . . to apply broad knowledge and practical experience in choosing manufacturers' products to implement each process. They help keep growing pains out of a growing business."

**Handling taconite** is a tough assignment, because it's highly abrasive. So Jeffrey Belt Idlers were a logical choice for the 94 belt conveyors (2700 feet of them) serving this pelletizing plant. All bearings are protected against the entry of dirt by an effective, double labyrinth grease seal. Ends of rolls are shaped to deflect materials away from these seals.

Jeffrey Idlers offer maximum efficiency, dependability and economy in belt operation. Oversize roller bearings reduce power requirements and give a factor of safety far in excess of any overloading to be expected. Positive roll alignment assures continuous full capacity operation.

**It pays to team up with a top flight engineer-constructor and to specify Jeffrey feeders, conveyors, elevators, magnetic separators, primary and secondary crushers, chains, power transmission machinery, and related equipment.**

**THE JEFFREY MANUFACTURING COMPANY**  
960 North Fourth Street, Columbus 16, Ohio



**Belt Conveyors** have been long recognized as the most practical and economical means of moving large quantities of bulk material over great distances.

**This view shows the loading end of a Jeffrey Belt Conveyor—note series of rubber-cushion idlers designed to protect belt from impact of heavy pieces.**



**JEFFREY**

**CONVEYING • PROCESSING • MINING EQUIPMENT...TRANSMISSION MACHINERY...CONTRACT MANUFACTURING**

**CHEMURGY: Releasing the benefits of farm products to industry through chemistry**



**How manufacturers improve products because  
GLIDDEN GIVES BETTER MILEAGE FROM THE SOYBEAN**

Soybean derivatives may help improve your product and reduce production costs—just as they have for petroleum in the family car, foods in the picnic basket, and even rubber and plastic parts in the portable radio. Reason—Glidden Chemurgy has taken soybeans out of the dream stage for almost every industry you can name.

In the **BUILDING MATERIALS** industry, Glidden *Alpha Protein*® helps the manufacturer of insulating board produce a waterproof, durable board that can be painted without difficulty. Because *Alpha Protein* has a high tolerance for other ingredients in the coating, it reduces coating and waterproofing from two operations to one—a saving in both production time and cost. *Alpha Protein* is also used in the manufacture of almost all the washable wallpaper produced in the United States, in coating high-quality printing paper, and in the manufacture of latex-base paints.

And . . . Glidden is the *leading* soybean processor continuing operations beyond the crude products level, to produce *special-purpose* derivatives that may help improve your product. Call or write Glidden Technical Service for ideas and assistance.

**Glidden**  
**CHEMURGY DIVISION**  
THE GLIDDEN COMPANY  
1825 North Laramie Avenue • Chicago 39, Illinois

**USES OF THE SOYBEAN  
IN INDUSTRY:**

**ADHESIVE**

*In paints, paper, plywood,  
wallpaper, insulating  
board, floor coverings*

**BLENDER**

*In chewing gum, petroleum*

**DISPERSING AGENT**

*In instant foods, paint,  
varnish, rubber and plastics,  
shortening*

**EMULSIFIER**

*Baked goods, margarine,  
petroleum, textiles, soap,  
cosmetics, pharmaceuticals*

**NUTRITIVE SUPPLEMENT**

*In foods, pharmaceuticals*

**PARTING AGENT**

*In rubber and plastics*

**PENETRATING AGENT**

*In soaps and cosmetics*



MANUFACTURERS OF INDUSTRIAL AND EDIBLE SOY FLOURS AND PROTEIN, CRUDE AND SPECIAL-PURPOSE LECITHINS, STEROIDS, SOYBEAN MEAL AND OILS.



HIS EXECUTIVE LETTERS ARE IMPORTANT... LOOK IMPORTANT!

THEY'RE TURNED OUT ON THE REMINGTON® ELECTRIC



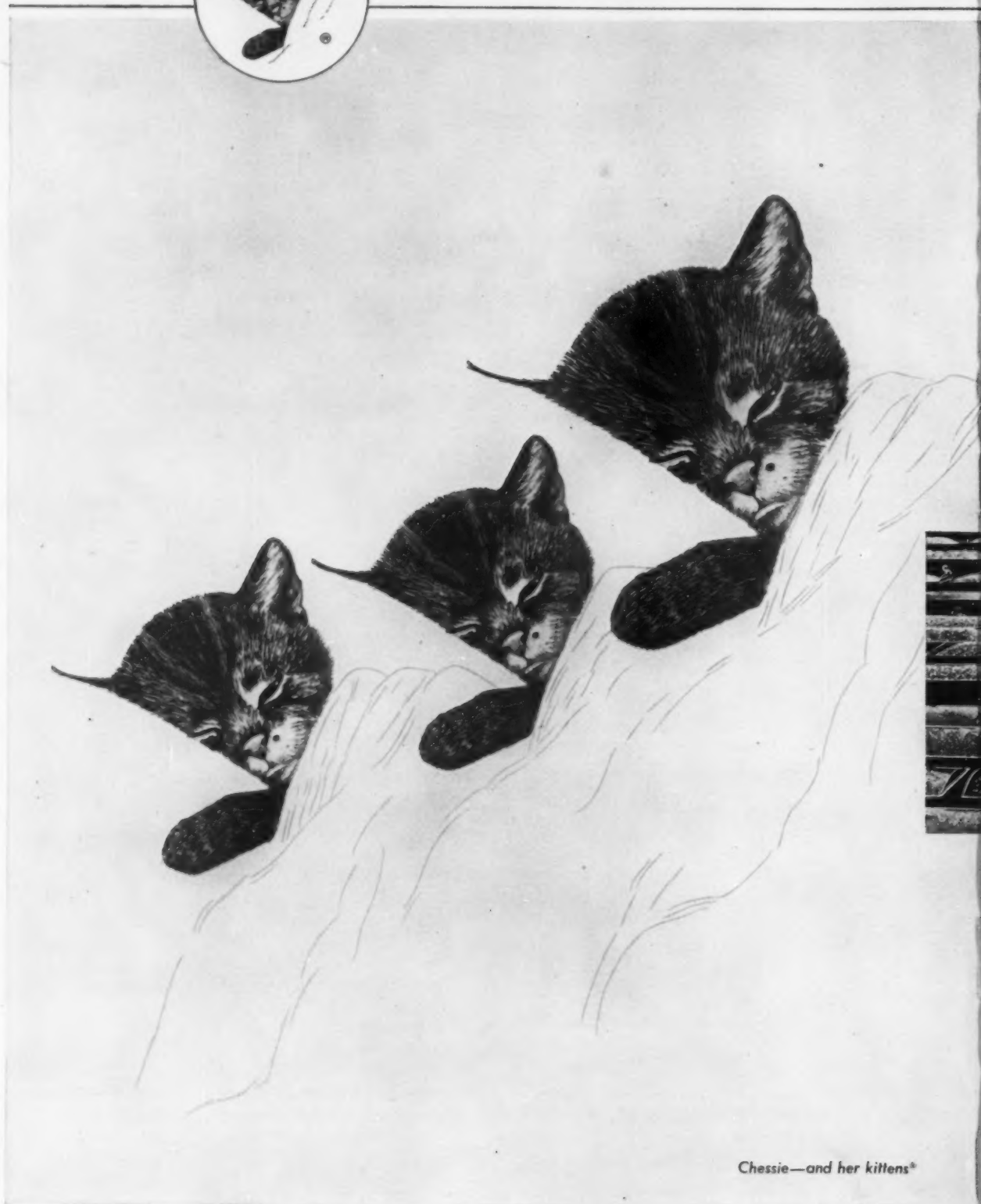
**Remington Rand**  
DIVISION OF SPERRY RAND CORPORATION

Realizing the importance of letters that look impressive, it's no wonder this top executive has his correspondence typed on a REMINGTON ELECTRIC. It's the typewriter that offers a selection of over 100 distinctive type styles for executives . . . letterhead-harmonizing colored ribbons . . . consistently perfect printwork. In short, correspondence that reflects his status.

Send for beautiful, full color booklet "Launching A New Era of Typing Perfection" (RE8811), Remington Rand, Room 1202, 315 Fourth Avenue, New York 10.



# WHAT MAKES CHESSIE'S



Chessie—and her kittens®



## RAILROAD GROW?

*One of a series telling what Chesapeake and Ohio is doing to make this a bigger, better railroad.*

### Chessie looks to the future

1956 was a year of significant growth for Chesapeake and Ohio. But 1957 should be an even better year as Chessie's Railroad continues growing and going.

Last year over \$90 million went into new freight cars, new diesels, new ore and coal piers, new yards, new signal systems — and more than half of this vast capital expenditure was paid for in cash out of the Company treasury. This year's plan provides for even more improvements and new equipment, including

\$70 million for more new freight cars.

All of this expansion means better and faster service for C&O customers. Chessie's growth keeps pace with the steadily mounting demands for coal from the steel, electric and chemical industries. A million tons of American coal weekly are going to fuel-hungry Europe. New, efficient facilities will better serve the healthy growth of present industries and attract new industries to the rich territory which C&O serves.

Nor has Chesapeake and Ohio expansion been confined to its 5100 miles of rail line. It is reaching into the air with a \$3 million investment in Slick Airways, Inc., nationwide and international air freight carrier; and to sea through its partnership in American Coal Shipping, Inc., a \$50 million corporation to advance the export of coal.

With improvements totaling more than a half billion dollars during the last decade, Chesapeake and Ohio is already practically a new railroad. But with faith in the future, Chessie's railroad is planning, working and spending to keep its place in the forefront of transportation progress.

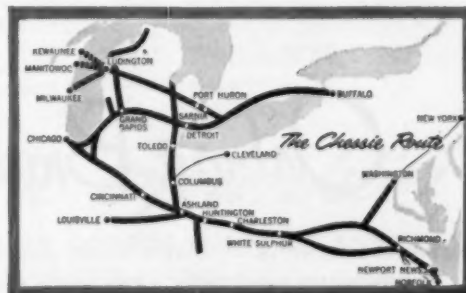


*Three out of every ten coal cars loaded at C&O mines are for shipment overseas, with every indication of increasing coal exports through the years ahead.*

Would you like a copy of C&O's 1956 Annual Report? Write to:

### Chesapeake and Ohio Railway

3804 TERMINAL TOWER, CLEVELAND 1, OHIO





BRUSHING METHODS

• *worthy of your confidence*



BEFORE BRUSHING



At the push of a button.

*Osborn Master® Wheels remove burrs and blend surface junctures. Costs are down 74% from previous hand method.*

AFTER BRUSHING



## Push-button finish... 1400 per hour

**T**HE manufacturer of this machined aluminum ammunition component was faced with the necessity for attaining a high production rate, and at the same time, meeting the standards of rigid quality control.

Working closely with the Osborn representative, he built the rotating fixture shown above. Three Osborn Master® Wheels quickly remove feather burrs, blend surface junctures. Uniformly finished parts come through at the rate of 1400 per hour.

Osborn offers its services to you without obligation. A qualified **Osborn Brushing Analyst** is available wherever industry centers. He will welcome the opportunity to work with you. Write *The Osborn Manufacturing Company, Department A-91, 5401 Hamilton Avenue, Cleveland 14, Ohio.*

Write TODAY for  
the new  
100-page Osborn  
Catalog 210-C.

# Osborn Brushes®

BRUSHING METHODS • POWER, PAINT AND MAINTENANCE BRUSHES  
BRUSHING MACHINES • FOUNDRY MOLDING MACHINES

of several months. It isn't only the guy who might never submit an idea to management because he might be afraid of appearing ridiculous, but also the man who is so set in his ways that before brainstorming it would take an act of God to make him change his mind, let alone an idea submitted by a subordinate. . . .

WILLIAM H. KEARNS, JR.  
ASSISTANT TO THE PRESIDENT  
ATLANTA PAPER CO.  
ATLANTA, GA.

Dear Sir:

Thank you for your provocative round-up on brainstorming. . . .

It jarred my thinking a bit. I teach "Creative Thinking" at Northwestern University . . . and elsewhere. In my classes I always spotlight brainstorming's admitted limitations—and feature the techniques on how to think creatively. . . .

WHITT N. SCHULTZ  
ILLINOIS BELL TELEPHONE CO.  
CHICAGO, ILL.

Dear Sir:

In reading through your recent article on brainstorming, I was surprised at the statement attributed to Charles Clark of Ethyl Corp. I refer to the sentence "He said he personally can't point to any product or technique that has come out of a session."

I sincerely believe that the reporter misinterpreted some statement by Charlie Clark, for this reason. Charlie Clark and I have appeared on the same speaking platform many, many times. Therefore, he has heard my talk on brainstorming which always includes a section on tangible ideas, results, promotions, names, etc., which are the direct result of brainstorming sessions. . . .

WILLARD A. PLEUTHNER  
VICE-PRESIDENT IN CHARGE OF  
BRAINSTORMING & COMMUNICATIONS  
BATTEN, BARTON, DURSTINE & OSBORN, INC.  
NEW YORK, N. Y.

Dear Sir:

Your . . . article . . . is very interesting. You quote various authorities giving both sides of this issue. Of the two, the curse side of it seems more convincing to me.

Here is how I look at this matter: (1) Brainstorming sessions appear to be a tacit admission of bankruptcy of leadership; (2) brainstorming is O.K. for the advertising industry, where the goofiest idea is likely to produce an ad



Mr. T. R. Heyer, V. P., The Heyer Corporation, Chicago, Illinois

## Look at our figures on "Automatic" Sprinkler Fire Protection... says the Heyer Corporation

Annual Insurance Cost—without Sprinklers . . . . .	\$ 9,112.96
Annual Insurance Cost with "Automatic" Sprinklers . . . . .	986.00
<b>TOTAL ANNUAL INSURANCE SAVINGS . . . . .</b>	<b>\$ 8,126.96</b>
Cost of "Automatic" Sprinkler Installation . . . . .	\$20,965.00
(to be paid over a 5-year period)	
Cost of Installing Central Station Supervision Service . . . . .	2,572.56
<b>TOTAL INSTALLATION COST . . . . .</b>	<b>\$23,537.56</b>
Annual Rental—Central Station Supervision Service . . . . .	\$ 756.00
Net Insurance Savings—1st year . . . . .	\$ 605.40
Projected Net Annual Insurance Savings—2nd to 5th year . . . . .	4,689.96
<b>NET PROJECTED INSURANCE SAVINGS—1st 5 years . . . . .</b>	<b>\$19,365.24</b>
Projected Net Annual Insurance Savings—2nd 5 years . . . . .	\$ 7,370.96
<b>PROJECTED NET INSURANCE SAVINGS—2nd 5 years . . . . .</b>	<b>\$36,854.80</b>
<b>PROJECTED NET INSURANCE SAVINGS—1st 10 years . . . . .</b>	<b>\$56,220.00</b>

"In addition, because of our Central Station Supervision Service, which the "Automatic" Sprinkler System made possible, we are making an annual savings of \$4238.36 in cost of Watchman Service. And, of course, we have the safeguard of complete fire protection for our plant—extremely important for business continuity—since many of the materials used are highly flammable and a serious fire would be disastrous."



**WANT MORE FACTS?** Send for our Bulletin No. 66 "The ABC of Fire Protection" which tells you how "Automatic" Sprinkler Fire Protection can protect your plant—while reducing your insurance premiums and returning a profit.

# "Automatic" Sprinkler

**"AUTOMATIC" SPRINKLER CORPORATION OF AMERICA**  
YOUNGSTOWN 1, OHIO

OFFICES IN PRINCIPAL CITIES OF NORTH AND SOUTH AMERICA



**Don't drop insurance protection  
when you add your profit and ship**

You pass title of your working capital when merchandise is shipped—you create an account receivable. You're more certain of the end result—PROFIT—when you protect accounts receivable with Credit Insurance. That's why an increasing number of executives have decided that NO cycle of protection is complete unless capital invested in accounts receivable is insured by ACI. To learn more about Credit Insurance, call our office in your city, or write AMERICAN CREDIT INDEMNITY COMPANY of New York, Dept. 41, Commercial Credit Building, Baltimore 2, Maryland.

**Liquidity of capital is the  
prime responsibility of management.**

**Protect your working capital  
invested in accounts receivable  
with**

**American  
Credit  
Insurance**

that will sell a million dollars worth of cigarettes; (3) brainstorming is an irresponsible way of collecting ideas from subordinates.

It seems that there are too many ulterior motives for them. Such motives cannot go unnoticed in a free enterprise society. . . .

FREDERICK MARICH  
CONSULTING ENGINEER  
NEW YORK, N. Y.

Dear Sir:

Your article on brainstorming was very interesting, even if its greatest value was in stimulating readers, as it did me. . . .

ROBERT G. WULFF  
EVANSTON, ILL.

Dear Sir:

The article . . . Brainstorming: Cure or Curse? might well be called a "Tragedy of Errors." That your writer is thoroughly confused is understandable, but that you would pass on to your readers his confusion and his totally incomplete grasp of facts, is beyond my comprehension.

Brainstorming is not a "cure" for anything. It is far from being a "game." Its use, certainly, by persons not properly indoctrinated in the techniques of Creative Thinking as taught by Osborn . . . can be a "curse."

This technique is a *must* and cannot be taught in five minutes or even five hours if successful "brainstorming" is to be carried out. . . .

EDWIN J. MACEWAN  
EXECUTIVE VICE PRESIDENT  
CHAMBER OF COMMERCE  
PATERSON, N. J.

Dear Sir:

Brainstorming is reminiscent of what AMA (American Management Association) had to say about suggestion programs 15-20 years ago. I concluded from committee work, that an hour of a supervisor's sleeplessness exceeded the maximum joint efforts of his subordinates—though often their complaints triggered his wakefulness.

Ideas are a quarter a dozen (inflation) — their development, acceptance, and installation are the crux. Soon imagineering will be supplanted, I wager, by the "insomniaticination" which all good executives practice.

P. BARROWS  
DEL MAR, CALIF.

Letters should be addressed  
to Readers Report Editor,  
BUSINESS WEEK, 330 West 42nd  
Street, New York 36, N. Y.





Late shipping lost Dan lots of dough and what's more  
He developed neuroses—in fact, he got sore!



Now debonair Dan ships with poise and finesse  
Using swift, economical **RAILWAY EXPRESS**!

## How to quiet "Shipping Nerves"!

Beware of shipping "bargains"! If you're paying extra for pickups, deliveries, insurance, or unnecessary bookkeeping—chances are your shipping dollar's being taken for a ride.

When you ship by Rail or Air Express, you pay one fixed charge from pickup to delivery, within vehicle area limits. That's all!

No hidden costs or extra charges. No confusion or added paper work. It's always a real buy—swift, dependable and complete. And Railway Express serves some 23,000 American communities. What's more, you can speed shipments almost anywhere in the world through the international service of Railway Express.

The big difference is





10,000,000TH MAYTAG WASHER to come off the line is christened by Maytag Home Service Director Mary Margaret Christianson while Maytag Queen Gerry Reitveld looks on. The Newton, Iowa plant feted this milestone in appliance history to mark a production record unequalled in the industry.

**THE  
TOUGH JOBS  
GO TO  
TEXACO**

## THE MAYTAG COMPANY

knows the importance of effective lubrication in keeping its appliances working dependably through years of washdays — and for more than twenty years Texaco has helped to deliver it.

Maytag Washers and Dryers are Texaco-lubricated when they leave the factory. And Texaco Lubrication Engineers work closely with Maytag Engineers on the lubrication requirements of new appliances — right from the initial design stage.

The Maytag Company is just one of the many well-known companies which have achieved top results with Texaco. There are three good reasons for this wide acceptance: *field-proven* Texaco Lubricants, developed with the aid of the finest research facilities available . . . *field-experienced* Texaco Lubrication Engineers to advise on their use . . . and *fast, efficient service* from over 2,000

Texaco Distributing Plants in all 48 states. This combination can help bring production *up* . . . and costs *down* . . . in every major field of industry and transportation. One agreement of sale supplies all your plants wherever located. For details, call the Texaco Distributing Plant nearest you, or write The Texas Company, 135 East 42nd Street, New York 17, N. Y.

**TEXACO**  
**INDUSTRIAL LUBRICANTS**



TUNE IN . . . METROPOLITAN OPERA RADIO BROADCASTS EVERY SATURDAY AFTERNOON

# BUSINESS OUTLOOK

BUSINESS WEEK

FEB. 2, 1957



Public works promise to remain a rapidly expanding factor in 1957 construction—and in the over-all economy, for that matter.

But these have faced and still are facing a big obstacle: money.

State and local governments borrowed more than \$1½-billion in 1956's final quarter. And voters have approved more than \$3-billion in bond issues not yet offered (not to mention issues yet unauthorized).

Figures on total borrowings by state and local governments indicate the magnitude of immediate needs. But they don't, even so, reflect the total demand for funds in this field.

The Investment Bankers Assn. of America finds that \$191-million of bonds were held off the market in last year's fourth quarter.

And this wasn't just any-old-time borrowing. These were sales for which dates had been set and then canceled. If money had been easier, those bonds would have been sold (plus fully \$100-million more for which dates never were set).

Education represents far and away the biggest need now being felt in the tax-exempt market (highway programs notwithstanding).

Municipal bonds worth almost half a billion dollars were sold for educational purposes in the fourth quarter last year. And elections are being held to authorize \$167½-million more in the first four months of 1957 (out of \$240-million worth of bonds to be voted on).

Thus more than a third of new bond issues late in 1956 were for schools as are well over two-thirds of the issues now waiting voters' approval.

Local improvements suffer not only from the tightness of credit but also from the interest rate. Often the rent on the money is so high that the size of the bond issue has to be pared; other times, a local law governing interest rates bars the offering entirely.

A legal limitation of 3% or even 3½% on interest these days can result in the issuer receiving no bids whatever.

More and more corporations are having to raise new money that had been expected earlier to come out of retained earnings and reserves.

One such appeared this week—the Anaconda Co.

The big mining concern has a huge five-year program for development and expansion. Yet, as recently as last May, it had been announced that the needed \$350-million should be generated internally.

Now, though, directors have decided to sell more than 1.7-million shares; stockholders get first crack at the new stock.

High costs of doing business and uncertainty over profit margins are causing many companies to wonder about the desirability of raising a little extra capital—money that wouldn't be needed ordinarily.

This may, in fact, apply to the United States Steel Corp.

Roger M. Blough, chairman, this week told reporters Big Steel hasn't "authorized any new financing" and isn't "contemplating any at present." But he wouldn't entirely rule out the possibility.

# BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

FEB. 2, 1957

Need to bolster working capital by conserving cash was cited this week by Textron, Inc., as the reason for a cut in its dividend rate. Wall Street, though, took this with a grain of salt; it was noted that Textron's old dividend of \$1.60 a year was covered only by the narrowest of margins out of 1956 earnings (estimated at \$1.74 a share).

Spotty conditions—the same sort of layoffs here and hirings there that marked 1956's "straight-line recession"—go right on making news. Take, for example, three developments this week:

- A refrigerator maker reduced its work force "to balance production with demand" and "to prepare for model changes."
- A manufacturer of kitchen cabinets recalled about half the workers laid off last November.
- A maker of lift trucks cut the work week from five days to four.

More orders for cotton textiles, which brightened a few early winter days, proved illusory. This week, mills were cutting back.

This letdown shouldn't be a surprise (BW—Oct. 27'56, p24).

October's spurt in activity accompanied a price boost. Old heads in the trade warned that a lot of the buying was simply due to rising prices and not at all a reflection of new consumer demand.

Employers should appreciate whatever seasonal slack now exists in the labor force, for there's little but squeeze in the future. About all the customary sources of "extra" workers have been tapped.

We had 1.2-million more nonfarm workers at the end of 1956 than in 1955. But we're unlikely to have another such gain until the sixties. Normal growth in 1957, for example, is unlikely to reach 700,000.

Here's a little problem in trying to make ends meet:

The labor force now is growing about 1% annually. Yet the number to be fed and clothed is increasing about 1.7% a year.

Obviously, those working have to take home more money or living standards will deteriorate. This probably helps account for the fact that more than 32% of all workers at the end of 1956 were women.

Additions to the working force now are limited by the low birth rate of the thirties and greater time spent in schooling.

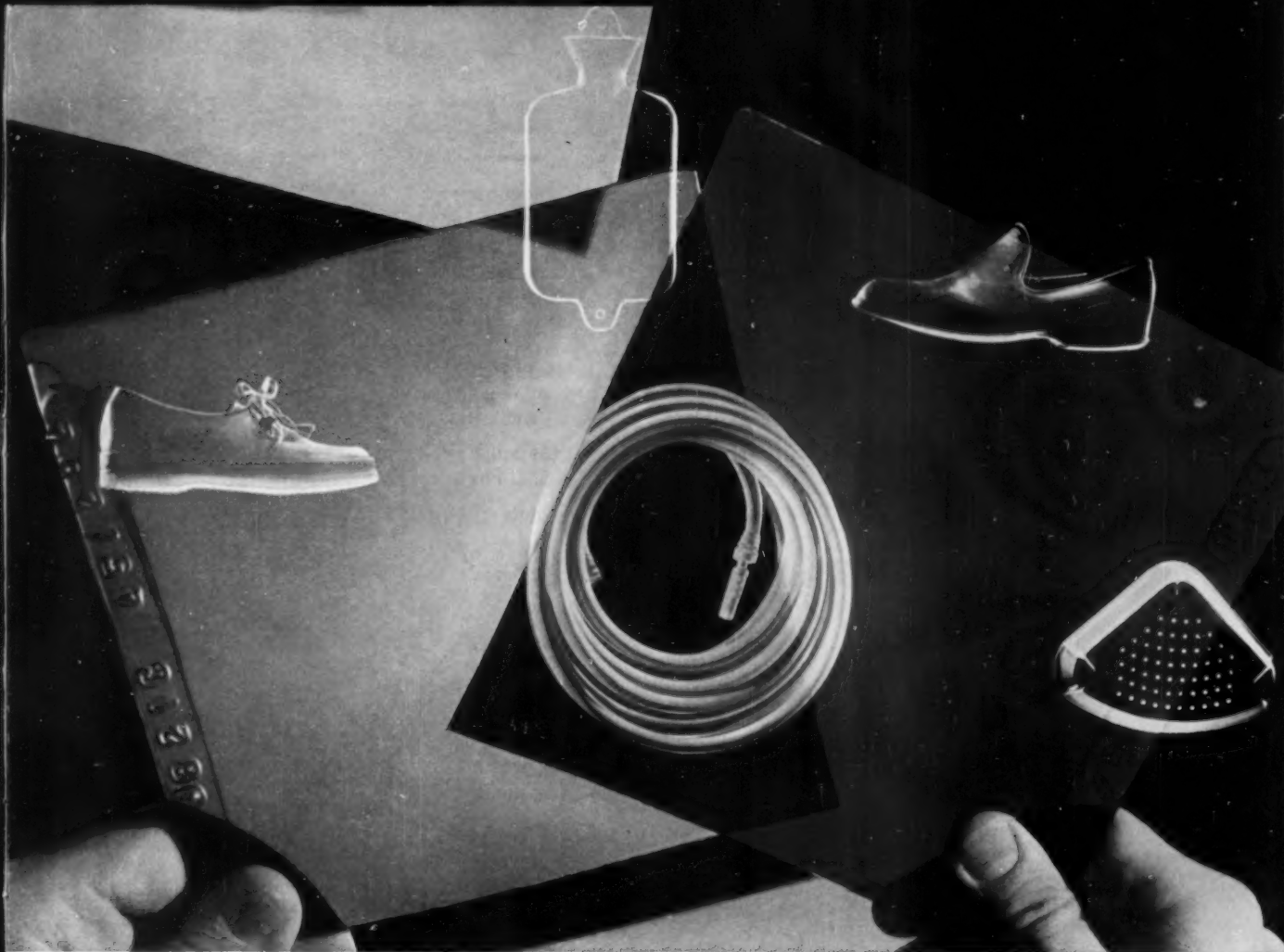
This means a slightly older work force, on the average, during the next two or three years. About 1960, we'll see the younger workers showing up in force—the postwar baby crop coming of working age.

More steel is available now—if you can find it in a shape you can use and are willing to pay what it will cost.

There's the case of 70,000 tons of pipe that A. O. Smith Corp. is fabricating for Shell Oil to carry New Mexico oil to California.

The steel comes in billets, not in plates needed to form the pipe. Originally, so the story goes, these billets had been earmarked for rolling into sheet for autos. But Detroit hasn't called for them.





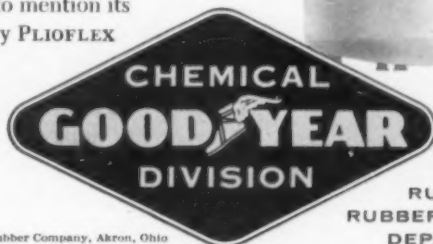
## What new use for synthetic rubber do you see here?

**Clearly different** is the sample of compounded PLIOFLEX—the lighter colored synthetic rubber—pictured above. It's the first time ever that such clarity has been achieved in rubber. And what a host of possible uses it brings to mind—shoe soles, hose, tubing, toys, housewares, novelties.

**Easier said than done**, however, was finding the right combination of materials to produce this "clear" compound. Over 700 formulations were evaluated before success was realized. And of all the rubbers and pigments tested only combinations of PLIOFLEX 1778 and a silica pigment, Hi-Sil 233, permitted the maximum clarity for both hard and soft products.

**The reasons why** PLIOFLEX fills the bill so well are its extremely light color, its purity and its excellent general physical properties, not to mention its economy. These, incidentally, are the same reasons why PLIOFLEX is so frequently specified for other, more common uses.

**What can you do** with PLIOFLEX in "clear" rubber or other applications? Start finding out by writing for full details to: Goodyear, Chemical Division, Dept. B-9415, Akron 16, Ohio.



**RUBBER &  
RUBBER CHEMICALS  
DEPARTMENT**

Chemigum, Plioflex, Pliolite, Plio-Tuf, Pliovic — T.M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

**CHEMIGUM • PLIOFLEX • PLIOLITE • PLIO-TUF • PLIOVIC • WING-CHEMICALS**

Hi-Sil—T.M. Columbia-Southern Chemical Corporation

High Polymer Resins, Rubbers, Latexes and Related Chemicals for the Process Industries

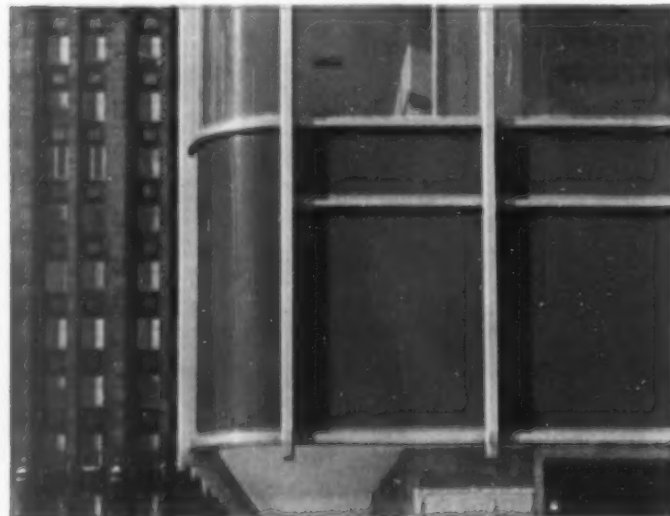
# This is curtain-wall construction

## made with porcelain-enameled and Stainless Steel



The beautiful entrance combines Stainless Steel, porcelain-enameled steel, glass and stone.

Interlocked steel curtain-wall panels are assembled to building with steel anchors, bolted to top and bottom of spandrel beam.



Eyes were bulging in Minneapolis when the new Lutheran Brotherhood Building began to rise. When the *curtain wall* was applied, it became obvious that this would be one of the outstanding buildings in Minneapolis for a long time to come.

The finished building is like a shimmering, blue-green gem set in a delicate checkerboard of Stainless Steel mullions (the frames around each panel). The porcelain enamel is permanently fused onto a base of USS Vitrenamel Sheets. *No other construction gives such strong, rich, lasting color at such low cost.*

Be sure to consider curtain-wall construction when planning a new building. The thin panels allow much greater floor area. Their light weight economizes on structural steel. The low maintenance is a feature that returns extra dividends for decades after the building is occupied.

Remember the combination of porcelain-enameled and Stainless Steel for lasting beauty, low first cost, and low maintenance. For information, write to United States Steel, Room 2801, 525 William Penn Place, Pittsburgh 30, Pa.

#### Architects:

Perkins & Will, Chicago

#### General Contractors:

Kraus Anderson, Inc., Minneapolis

#### Curtain Wall:

Fabricated by Flour City Ornamental Iron Co.,  
Minneapolis

#### Porcelain-enameled Panels:

Ingram-Richardson Mfg. Co., Beaver Falls, Pa.



SEE The United States Steel Hour. It's a full-hour TV program presented every other week by United States Steel. Consult your newspaper for time and station.



## **USS STEELS FOR ARCHITECTURAL DESIGN**

---

**USS Stainless Steel • USS Vitrenamel Sheets  
USS Structural Steel • USS Window Sections**

**UNITED STATES STEEL**

**\*V. I. P.'s at every desk**



*\*V.I.P.'s—Versatile Ink Pencils*

## Everybody's important enough to have a **NOBLOT** Ball Pen!

Meet His Nibs, the new *woodcased* NOBLOT Ball Pen—companion to your MONGOL lead pencils. It's your handy Eberhard Faber *desk pen!* NOBLOT, the woodcased pen that has everything you like about a pencil: lightness,

balance, slimness—and *low cost*. Choose your color: Blue, Black, Red, or Green. NOBLOT—No Leak, No Smear, No Fade, No Transfer. Made by the makers of the famous MONGOL lead pencil.

Trademarks Reg. U.S. Pat. Off.

SEND FOR FREE SAMPLE OF NOBLOT Ball Pen.

Check Color Choice ☐ ☐ ☐ ☐

Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

Attach coupon to company letterhead.



Just **29¢** less in quantity

Since 1849

**EBERHARD FABER**  
WILKES-BARRE, PA. • TORONTO

*puts its quality in writing*





Pres. Henry Ford II extends a glad hand to a Ford Motor Co. dealer at this week's National Automobile Dealers Assn. convention. After a year of strain, there's peace, as the . . .

## Auto Industry Closes Its Ranks

After a year of strained relations that threatened the industry's basic system of distribution, auto manufacturers and their retail dealers have buried the hatchet. They fraternized amiably (picture) at this week's convention of the National Automobile Dealers Assn. in San Francisco. Out of that fraternization may come some long-run developments that make a difference not only to auto buyers but to manufacturers and dealers in a lot of other industries as well.

A year ago at this same convention, the air was blue with threats, and the

40-year-old system of exclusive franchises was tottering (BW—Feb. 4 '56, p29). Company presidents hugged the safety of Detroit as dealer after dealer went to NADA's microphone to denounce the system.

Now the air has been cleared. The dealers, working through NADA, won a victory in Congress last year—a new law that gives them the right to sue in federal courts for manufacturers' failure to "act in good faith." Franchise agreements are being revised to give the dealers pretty much all they asked for, and the distribution system of this key

industry seems to be stronger than ever.

• **Far-Reaching Effect**—The relief of auto company presidents at the new spirit in the dealer corps was evident both in what they said and in the fact they appeared at the convention. For the first time, four of the five auto presidents addressed an NADA convention—only Henry Ford II had ever spoken to NADA before.

But concern over the stress and strain of the past year has been by no means limited to the high brass of Detroit. Manufacturers of other consumer products—notably appliances—have made

gestures toward exclusive franchise dealing, for much the same reasons. Dealers who are under tight franchise:

- Can be assigned sales quotas that enable the manufacturer to set his year's production schedules on an economical basis. Such dealers pay for shipments on delivery, then take on the problem of selling them.

- Can be held to pricing and service standards set by the factory.

- Can be assessed part of the national advertising costs.

- Can be disenfranchised if they turn balky.

## I. Trouble Brews

The auto industry thrived on this pressurized hard-sell system—until mid-1953, when the market changed radically. The seller's advantage disappeared, and dealers found it impossible to sell all the new cars the factory shipped to them.

In the next three years, franchised dealers increasingly fought the factory-dominated system. They funneled their excess cars to "used car" dealers who ran what amounted to automobile supermarkets—a variety of makes at marked-down prices. They also attacked the system in the courts and in Congress. Last spring, they got their "good faith" bill through Congress—by a resounding 95-1 vote in the Senate.

Even before the bill passed, General Motors Corp. completely rewrote its franchise agreement to give the dealers what they demanded. Later, American Motors Corp. and Studebaker-Packard Corp. followed suit, and Ford and Chrysler are expected to do the same any day.

- **New Relationship**—Oddly enough, all that has happened in the past year—the legislation, the new franchise agreements, the appointment of "dealers' advocates" at the factories—has in a way strengthened the factories' control. Now, however, it is a control handed over voluntarily by dealers to people they once again think they can trust.

Said GM Pres. Harlow H. Curtice at this week's convention: "It is the best method that has been devised for serving our interests and the interests of the retail customer as well."

"We have just come through a year," said Pres. L. L. Colbert of Chrysler Corp., "in which you dealers and we at the factory have cleared the decks by talking out with each other some of our most troublesome problems, and doing something to solve them."

Pres. George Romney of American Motors wryly commented on the dealers' new found influence in Washington. "I don't need more than one 95-to-1 vote," he told the dealers, "to tell me where the political power lies."

Romney urged the dealers to use this power in attacking federal labor and antitrust laws that give unions greater bargaining power than management has.

- **United Front**—Romney's suggestion was significant. Having stopped fighting each other, the dealers and the manufacturers at San Francisco displayed a new mood of readiness to unite against any pressures that affect them both.

Joint factory-dealer protests can be expected on extension of automobile excise taxes, and joint action for more and better highways and highway safety measures. Certainly, too, dealers are hoping for factory support in their continual campaign to retain, as small retailers, exemption from many wage-and-hour provisions of federal laws.

## II. The New Climate

It's clear in San Francisco that the economic resources of the auto companies and the new political power of the dealers can be turned to new fields, now that they have reached a point of mutual trust. Perhaps nowhere is this new trust more evident than among the hierarchy of NADA, which claims to represent 30,000 of the nation's 42,000 new car dealers.

This is particularly true of NADA's executive vice-president, retired Adm. Frederick J. Bell, who masterminded the campaign against the factories.

Two years ago at the NADA convention, Bell said he sometimes wondered if the initials "GM" stood for "Generally Moronic." But his mood has changed. This week, contentedly sipping a whiskey sour high up in the Mark Hopkins, overlooking one of the world's most scenic views, Bell said he hopes the "good faith" law never will be used. He added that there is no pending legislation against the factories inspired or supported by NADA.

- **Proving a Case**—Bell thinks NADA proved two points:

- "What small business can do when it has a cause."

- That prompt remedial action can be taken by manufacturers.

Far from being less useful to the dealers, NADA can now be more useful, officials think, by concentrating on purely dealer operational problems and by lining up with the factories on broad political, economic, and social goals.

## III. Broader View

"With the correction of the past inequities and the production of a better climate in factory-dealer relationships," says Carl E. Fribley, retiring NADA president, "it now becomes mandatory on us to do our part in developing our industry."

Judging by what the company presi-

dents seemed to be asking the dealers to join cause in, "developing our industry" takes in a lot of ground.

- **Labor Issue**—George Romney indicated that when the United Auto Workers contracts come up for bargaining next year, there will be some agitation for industrywide collective bargaining.

"Should the automotive industry consider adopting this course of action," Romney said, "this break from individual collective bargaining by motor companies will raise some basic questions which you and we will want to study carefully."

For instance: "Can employers combine to negotiate with industrywide or national unions and still remain sufficiently competitive to avoid public pressures for some form of direct government control?" What Romney fears is that industrywide bargaining in the auto industry would make any resulting price increases more conspicuous in the public mind as being due to the union-management negotiations, and could easily result in a cry for a public representative in the bargaining.

He doesn't like the idea of industrywide bargaining, Romney insisted, but the unions have so much power that management has to find a counter. "So we are confronted with the necessity of reappraising and providing further for the division and distribution of the nation's social and economic power." And, added Romney, that's where the political power of the auto dealers could be helpful.

- **Trade Policy**—Henry Ford II admitted he wanted to talk about "matters that may seem far removed from the day-to-day business of making and selling cars and trucks," yet will have "a direct effect on your business and mine . . . and is the most important problem facing the nation."

Ford, a one-time alternate delegate to the United Nations, sharply attacked the U. S. foreign policy by highlighting a series of problems "which we cannot brush aside any longer." He caught the headlines by questioning whether the U. S. should continue to ban trade with Red China.

Why address automobile dealers in such a vein? Because, Ford said, "I believe if . . . private citizens like those of us here in this auditorium today will get interested more deeply and get into the heart of this struggle for a more effective foreign policy, then we shall be getting at the basic key to success."

It is not impossible but it is improbable that, a year ago, automobile manufacturers would have talked to dealers about labor relations and foreign affairs. But that was before the dealers had mustered a 95-to-1 vote in the Senate.

# Lake Carriers Get Seaway Jitters

**U. S. and Canadian Great Lakes shipping men now fear Seaway may bring lower-cost foreign ships to grab lake business and tolls may set back trade.**

**N**ORMALLY, the men who own and sail the U. S. and Canadian Great Lakes fleets are a relaxed and jovial crew during the winter freeze-over. This season, though, the progress toward completion of the canals and massive locks (picture, right) of the St. Lawrence Seaway is turning their midwinter joviality into gloomy foreboding.

Their worries about what the opening of the Seaway in two short years from now will do to the lake carriers burst out last week at Montebello, Que., at joint annual meetings of the U. S. Lake Carriers' Assn. and Canada's Dominion Marine Assn.

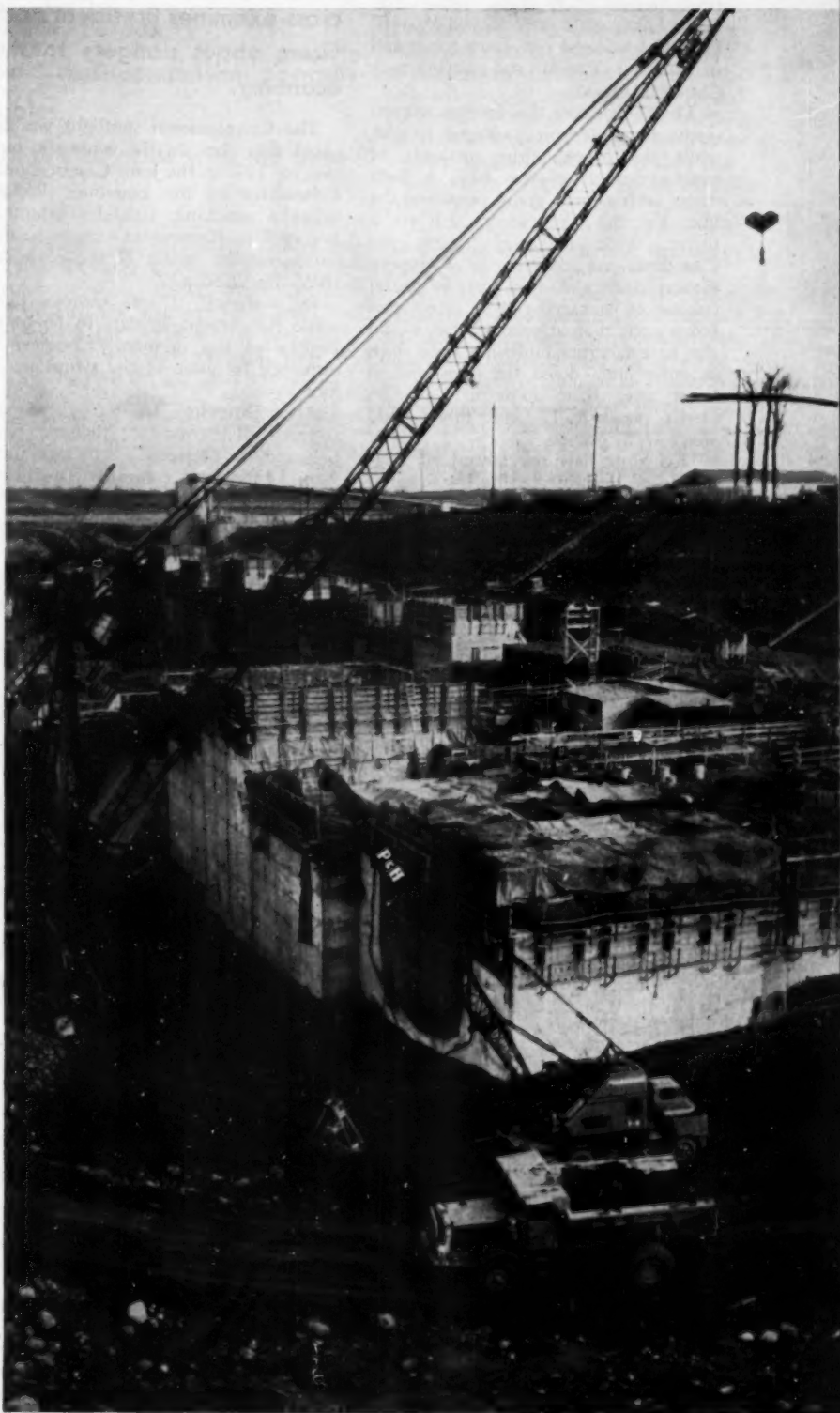
The U. S. and Canadian fresh-water carriers laid aside any rivalries of their own in a common anxiety over the headaches they feel the Seaway will bring on by 1959. Their main worries:

- For the first time, the Seaway will permit deep draft (up to 27 ft.) ocean ships to invade the Great Lakes trade. Both Canadian and U. S. ship-owners are having nightmares about lower-cost foreign ships operating on the lakes and grabbing away their business.

- Both are also anxiously eying the effect of Seaway tolls on the trade they carry. There's a fear, for example, that traditional movement of goods between the U. S. side of Lake Erie and Canadian steel mills on Lake Ontario would suddenly become subject to tolls, changing the cost picture. The Canadians are also afraid that tolls would penalize inland lake shippers of grain and newsprint, Canada's two biggest export commodities. The Canadian Pulp & Paper Assn., representing newsprint mills, says tolls would average \$1 per ton of traffic.

- **Foreign Competition**—That the threat of foreign competition on the lakes is not just a nightmare vision is indicated by activity of British and continental European shipping lines.

Hamburg shipyards, by the time the Seaway gets going, are expected to be turning out dual-cargo package freighters especially built for Seaway passage. In the spring of 1958, Canadian Pacific Steamships (sprawling shipping subsidiary of Canadian Pacific Ry.) and Cunard Steamship Co. will launch a joint British flag package-freight service from London through the Great Lakes. Until the Seaway opens, they will likely charter small package freighters



**SEAWAY LINK**—When completed, this huge 800-ft.-long Dwight D. Eisenhower lock in Long Sault Canal above Massena, N. Y., will bring 25,000-ton vessels to Great Lakes.



that can squeeze through the existing narrow system.

Two foreign lines—Norway's Fjell Lines and Holland's Oranje Line—have been poking their ships' prows into Great Lakes ports since World War II, bringing packaged consumer goods and machinery to Canada and carrying back Canadian exports.

• **Threat**—It's true this foreign interest seems to center on packaged freight, while the overwhelming majority of freight carried on the lakes is bulk cargo, such as ores, grain, pulp, and the like. Yet the lake carriers still see a threat. With dual-cargo vessels, the Canadians say, British or European carriers could not only carry a greater volume of packaged freight into Great Lakes ports than at present; they would also have facilities built into their ships to move grain down the lakes—and at lower rates than domestic Canadian carriers can do it. The same threat could affect U.S. carriers.

U.S. ships have one advantage, however; they are protected by law in carrying cargo from one U.S. port to another. But the British Commonwealth merchant shipping agreement of 1932 permits British vessels, operating much more cheaply than Canadian ships, to ply between Canada's inland ports.

The Canadians also see the future of their lake carriers in grain export trade as "particularly rough," with Seaway tolls making it even harder than now to compete in markets where the U.S. sells its grain for local currency. Canada sells grain only for dollars.

• **Tolls**—The lake carriers on both sides of the border were equally vehement in opposing Seaway tolls—and their vehemence seemed equally unlikely to bring results. Pres. Lyndon Spencer of the Lake Carriers' Assn. agreed to press for a no-toll system—but the U.S. St. Lawrence Seaway Development Corp. plans to go ahead with tolls as provided by Congress.

On the Canadian side, Trade Minister C. D. Howe says there's "not the slightest chance" of avoiding tolls.

• **Facilities**—The U.S. and Canadian carriers also united in asking their respective Seaway authorities not to prohibit ships, because of their size, from using the Welland Canal and the Seaway if these can be navigated with safety to life and property. The lake carriers, noting that vessels of 792-ft. over-all length and 75-ft. beam are being built to carry bulk commodities on the lakes, argued that the "greatest benefits from the Seaway can only be achieved by using ships of maximum dimensions."

All U.S. delegates pushed for port improvements to bring faster service. The U.S. Council of Lake Erie Ports meets at Buffalo on Feb. 27 to take up port improvement questions.

## Debate With CEA

**Congressional committee cross-examines President's advisers about dangers to the economy.**

The Congressional spotlight was focused this week on the economic outlook for 1957 as the Joint Congressional Committee on the Economic Report began a searching, eight-day examination of Pres. Eisenhower's report to the nation on the health of the economy (BW—Jan. 26 '57, p. 25).

By midweek, it was obvious that, while the patient appears to be quite healthy at the moment, Congress is disturbed by some of the symptoms it finds.

After listening to the three-man Council of Economic Advisers, who prepared the President's economic message, Democratic committee members came out upset not so much over the existence of inflationary pressures as the Administration's unwillingness to take bold steps to simmer them down.

• **Down to Issues**—At Monday's closed-door session, council members headed by Chmn. Raymond J. Saulnier sparred with committee members over the "tight money" policy, the size of the budget, whether the Administration or Congress should be responsible for getting it down to the right size and how badly small business is getting squeezed.

Saulnier spoke frankly, did not take advantage of his agreement with Chmn. Wright Patman of Texas to talk off-the-record if questions touched tender spots in Administration policy. He also agreed that a transcript of the hearings could be made public after he and his colleagues, Joseph S. Davis and Paul W. McCracken, have had a chance to go over it. The transcript will probably be made public next week.

Most of the questions that the congressmen threw at Saulnier and his colleagues were centered on inflation—on Eisenhower's admonition to business and labor to hold down price and wage increases, on the tight money policy, and on how much such policies are harming small business.

• **No Critical Threat**—The council members admitted they are concerned about rising prices, but they contended that, as long as the budget can be kept in balance, inflation will not be a critical threat.

Saulnier and his colleagues said their remarks in last week's report about failure of credit controls to stem price increases last year should not be construed as an Administration warning to the Fed not to tighten controls further.

They defined the phraseology as merely an observation—not a judgment.

CEA members were reluctant to advocate measures that might pinch some sectors of the economy unduly. The problem, they said, is to help the pinched sectors without adding to inflationary pressures that would push consumer prices even higher.

Small business, for example, has a problem in getting credit. But the council felt that, rather than loosening credit generally, the problem could best be solved by stepping up the Small Business Administration's loan program. But there is a sharp difference between Saulnier and Patman over how much more money SBA should have. Patman terms the \$20-million advocated by the Administration last year "a mere drop in the bucket."

Another proposal of the council to meet the tight money situation is for state and local governments to raise the statutory rate of interest on their bonds and securities far enough to attract the money that's going to offerings with bigger yields.

• **Big Spending**—On Tuesday, Budget Director Percival F. Brundage, in open session, reassured Democratic members who are concerned over a peacetime spending rate of \$70-billion annually. The inflationary impact, he said, won't "be too serious so long as there is a budget surplus."

Some observers found it a curious spectacle to have the Republican Administration cast in the role of big spenders and Democratic congressmen in the critical role formerly played by Republicans.

Rep. Wilbur Mills (D-Ark.) suggested that the Administration is engaging in a "dubious practice" in basing its budget and predictions of a surplus on an anticipated growth of the gross national product of between 3% and 3½% annually. "I would feel a lot better about an anticipated balanced budget," he said, "if it were based on anticipating conditions no better or no worse than we have today."

Mills asked Brundage if the budget couldn't have been reduced by the Administration. Brundage testified it could have been, but not without hurting some programs. He suggested that Congress has a responsibility to help make economies, since a lot of federal expenditures come from Congressionally inspired programs.

• **More Testimony**—At midweek, the joint committee began the traditional panel discussions with economists from government, labor, industry, and universities.

Early next week, it will hear from Treasury Secy. George Humphrey and Federal Reserve Board Chmn. William McC. Martin, Jr. It will wind up on Feb. 6.



# Disputes Hobble the Oil Lift

● Administration is under attack for not taking stronger measures to get supplies to Europe.

● Despite bitter criticism, Texas commission opposes any sharp increase in oil allowables.

● The big oil producers are at odds with the independents on what to do now.

The Administration's oil-for-Europe program has bogged down. Oil shipments from the U.S. have dwindled to the point where officials are saying that the Atlantic Alliance is in danger of collapse—unless something is done in a hurry.

Faced with this danger—and with a Congressional investigation of the oil program (BW—Jan. 26 '57, p. 29)—federal officials this week talked about a three-pronged attack on the problem: reduced refinery runs in this country, higher crude production in Texas, and use by Europe of American military stocks of fuel oil.

• **Critical Period**—Assistant Secy. of Interior Felix Wormser warned this week that the next 60 days would be especially critical for Western Europe. One government estimate puts the European deficit for the first three months of 1957 at 500,000 bbl. a day as against 180,000 bbl. a day during the last three months of 1956.

There's increasing talk that the Administration is simply "muddling through"—and in the process, putting Western Europe in a position where it will have to accept almost any Suez settlement that Egyptian Pres. Nasser offers.

• **Attacks on Texas Commission**—The Texas Railroad Commission, which regulates the production of almost half the country's oil, is under even greater fire than the Administration. The crux of this criticism is that the railroad commission, which admits that if it pulled out all the regulatory stops Texas oil wells could produce an additional 1-million bbl. of crude a day, hasn't been pulling out enough stops fast enough.

As a result the commission is being pressured by the Administration and the major U.S. oil companies to make a substantial hike in its allowables. The railroad commission and Texas oilmen also are being attacked by the European press—especially in Britain as a pack of dollar-speckled barons intent on keeping gasoline pumps empty until they can get more money for their gasoline.

Some government officials have urged a direct public appeal to the

commission to reconsider and grant quick increases in the allowables, but Administration leaders have decided against it. Oil planners, as of now, are going on the premise that the Texas allowables won't be changed substantially in time to get past the current European oil crisis.

• **Appeal to Refiners**—As a result of this thinking most top government people involved in the oil lift are banking on an appeal to refiners.

They are calling on refiners to cut down their run of crude to refineries so that an additional 200,000 bbl. a day of crude will be available for export. The plan also calls for changes in refinery yields so that more fuel oil—and less gasoline—will be produced from each barrel in order to satisfy U.S. demand and further increase product shipments to some 300,000 bbl. a day.

Many refiners reportedly have promised to go along with this request. Yet government officials still feel it will also be necessary to draw on military fuel oil stocks unless crude production in Texas is increased.

• **An Industry Divided**—The issue of increasing the Texas allowables has divided the oil industry into two camps—the major companies vs. the small independent producers.

Early this week, the Texas oil allowable stood at an all-time high of 3.5-million bbl. a day. And the commission has just authorized a boost of an additional 92,970 bbl. a day effective Feb. 1.

• **Big Producers' Stand**—However, at the commission's recent hearings, many major companies, including Humble Oil & Refining Co., charged that the commission's increase didn't go far enough.

Humble's attorney, Herman Pressler, said that his company had firm tanker nominations by vessel name for specific January loading dates for a total of 5,528,000 bbl. of crude for shipment to Europe. However, Humble could supply only 600,000 bbl. from its own sources and could arrange for an export of only 1,038,000 bbl.

At the same time it called for a general hike in allowables, Humble and

other majors, also asked that greater allowables be set for oil wells near the Gulf of Mexico than for inland fields where pipeline facilities are inadequate.

The commission turned down this proposal because it would violate its traditional policy of "across-the-board" proration—letting oil fields in Texas produce the same number of days and letting each field share in the total market demand.

The commission also has indicated it takes a dim view of making any sharp increases in Texas oil production.

W. J. Murray, Jr., one of the three members of the railroad commission, has pointed out that sharp increases in allowables, followed eventually by cutbacks of equal size would be disastrous to the domestic industry. A great number of independents feel the same way. They say they have borne the brunt of the industry's troubles in recent years. And they don't want this situation to continue—especially now when the Suez shutdown has created a new demand for U.S. oil.

• **Independents' Position**—The independent oilmen also contend that the major companies owning oil pipelines have discriminated in West Texas against some independents; that about 8,500 wells there are without any pipeline connections at all.

Five major independent producer groups have asked that the commission order these pipelines to extend their lines to all unconnected wells. A hearing is set for April 1.

The independents want the railroad commission to keep tight rein on Texas production until pipelines can be extended and until gasoline stocks can be reduced.

• **U.S. Gasoline Stocks**—Right now, U.S. gasoline stocks are estimated to exceed normal demand levels by about 15-million bbl. Independents have pushed the idea that these stocks be taken down by shipping gasoline instead of crude to Europe. They point out that the gasoline surplus will get worse until the peak consuming season starts after April 1. They fear excess stocks are a threat to recent crude and gasoline price rises.

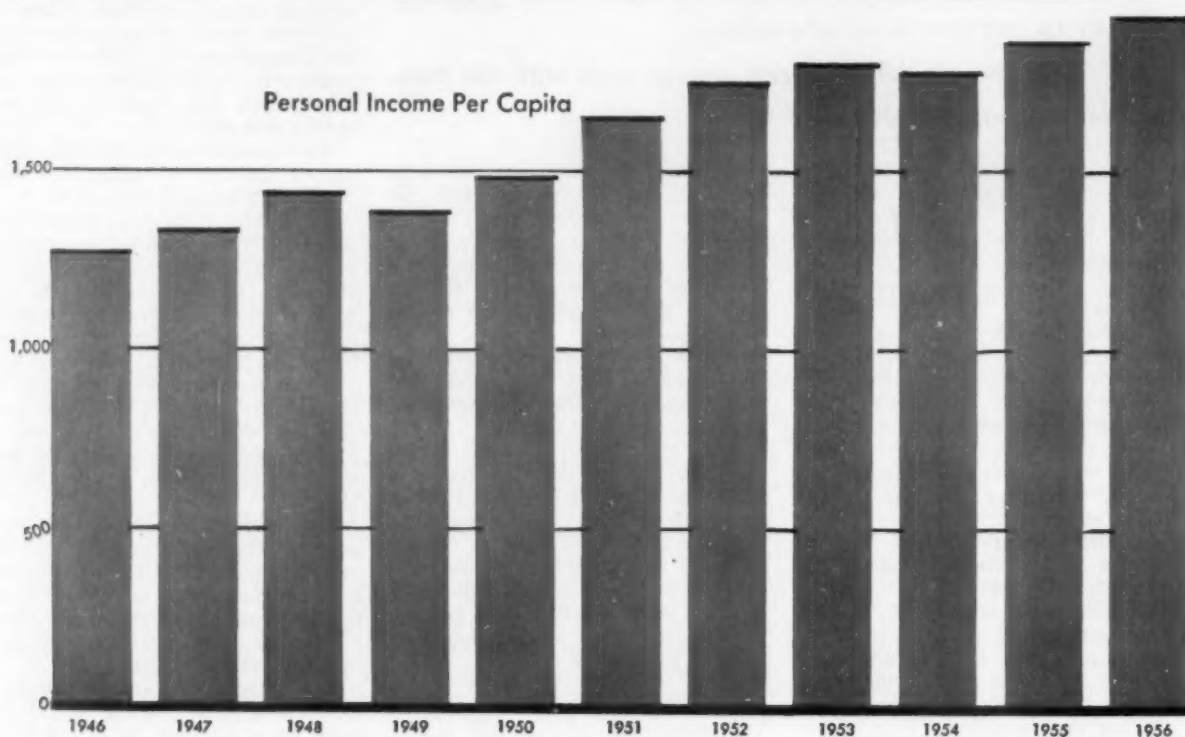
• **How Europe Feels**—But the idea of receiving large amounts of U.S. gasoline imports is distasteful to most European governments, the British particularly.

Great Britain wants crude, not gasoline. For one thing, it has to spend more of its scarce dollars for gasoline. Secondly, it would rather take U.S. crude and do its own refining. London points out that what it needs most is fuel oil, not gasoline.

# Rising incomes tell only part of the story of climbing U.S. living standards

Current Dollars

2,000



Data: Council of Economic Advisers.

## U. S. Takes Stock of Well-Being

Just how much closer U.S. families have come to the goal of the "good life" in the last 10 years becomes apparent anew from this year's Economic Report of the President. Besides its regular collection of figures, the report contains data adding up to what the Council of Economic Advisers calls the "diffusion of well-being" (charts).

The economists measure well-being with an assortment of gauges, ranging from the frequency of on-the-job injuries (which can put a crimp in any worker's style) to the number of national park visitors (an index of how many vacationers leave home). In between, there are figures drawn from almost every department of life, to paint what the Economic Report suggests is "a gratifying record of the improvement in the level of living that can be achieved through a vigorous competitive economic system."

True, there are limits to how successful statistics can be used to define

well-being. For instance, sales totals can tell how many long-playing records Americans bought in a given time—but they supply no hint of how much—or even whether—people enjoyed them.

• **Onward, Upward**—But the conditions indicated by these figures form a basis for better living. And even if you allow for their shortcomings, there's no doubt that the U.S. is much better off. Since 1946, for example, personal income per capita has risen 10.4% in terms of 1956 purchasing power. In the last four years, a number of factors of well-being increased much more rapidly than population—such things as spending for personal consumption, home ownership, holders of life insurance, weeks of vacation.

Sickness and old age threaten financial disaster to fewer people these days. Hospital insurance covers almost three times as many Americans now as in 1946, medical protection 10 times as many. The average family holds life

insurance worth twice as much. Social Security benefits apply to more than 85% of paid civilian employment.

• **Better Chance**—The improvements begin in the cradle—one-fourth fewer U.S. babies die at birth, even though the infant mortality rate was already small. And medical science has managed a three-fourths reduction in deaths of mothers in childbirth.

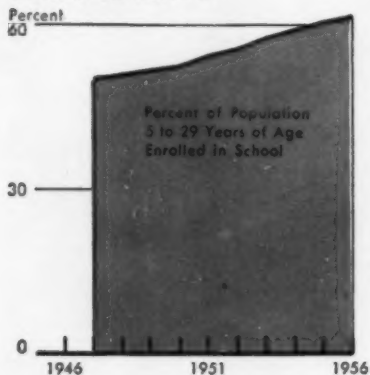
It's safer to work, too, because in 10 years the frequency of disabling accidents in manufacturing industries has dropped 40%.

The number of families and individuals with incomes exceeding \$5,000 yearly, the report shows, jumped from 9.1-million in 1946 to 23-million.

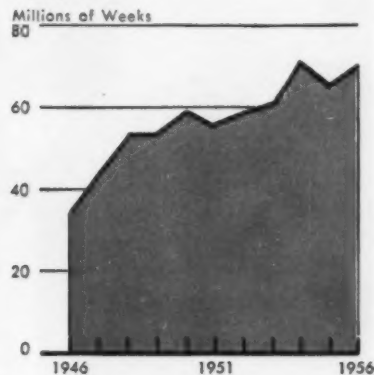
The amazing spread of electrical appliances is revealed by Electrical Merchandising, a McGraw-Hill publication. From virtually zero in 1946, there are now 39.4-million homes with TV, 8.6-million with freezers, and 5.6-million with dryers.

## Since 1946 there have been great increases in...

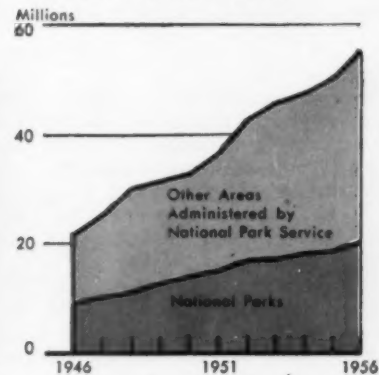
### School Enrollment



### Vacations

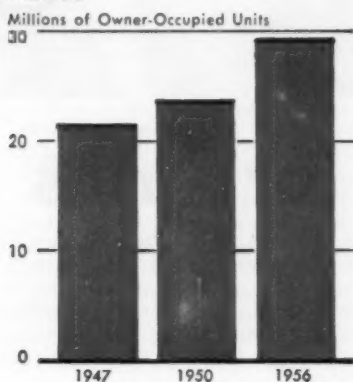


### Visitors to National Parks

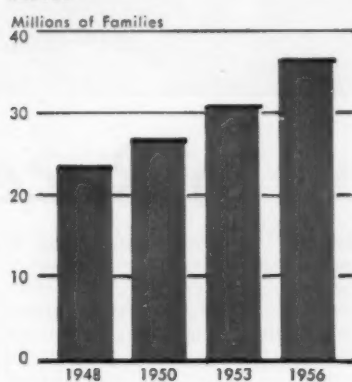


## Millions more U.S. families own...

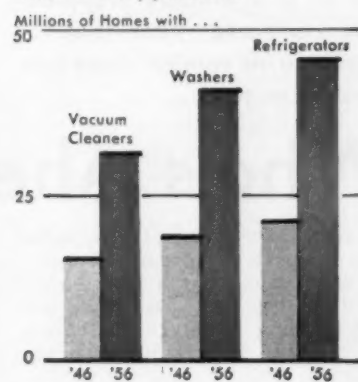
### Homes



### Autos

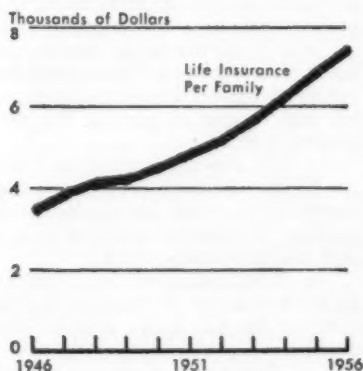


### Electrical Appliances



## They have much more personal security through...

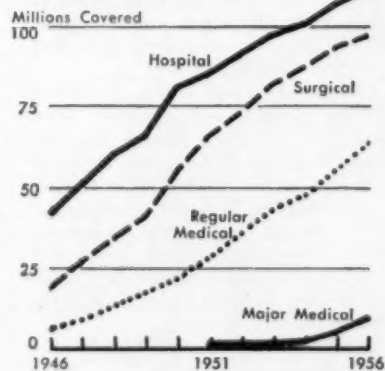
### Life Insurance



### Social Security



### Medical Expense Plans



Data: Council of Economic Advisors.

Stuart Symington takes a dim view of U.S. military preparedness compared with that of Russia. In his opinion, there's no question as to . . .



## Who's Ahead in Race for Arms

Senate Democrats fired their initial salvo this week as the annual Congressional debate over the military budget began to shape up. The attack was triggered by a weighty report from a Senate Armed Services Subcommittee, headed by Stuart Symington (D-Mo.). The findings painted a bleak picture of the state of U.S. military preparedness.

Last spring, the committee conducted a highly publicized, four-month investigation into the adequacy of the Administration's airpower program. The hearings drew conflicting testimony from military brass and top-echelon civilians in the Pentagon over the status of U.S. airpower compared with Russia's (BW—Jul. 14 '56, p. 32).

• **Charges**—For one thing, Air Force generals charged—and Defense Secy. Charles E. Wilson denied—that (1) Russia leads the U.S. in production of jet planes, and is making faster technological advances than this country; (2) under current production schedules, Russia's long-range striking power will be superior to ours by 1958-60; and (3) vital military research projects are being held up for lack of funds.

Symington's report pulls together the key testimony—culled from 1,885 pages of the hearings' transcript—and comes up with a detailed critique on the ade-

quacy of U.S. airpower to perform its varied missions. Its major conclusion: "Financial considerations have often been placed ahead of defense requirements, to the serious damage of our airpower strength relative to that of Russia, and hence to our national security."

• **Wilson's Stand**—This week, Wilson told the House Armed Services Subcommittee a different story. He said that the U.S. has "military forces of tremendous striking power which in my opinion adequately provide for our national security at this time." Wilson forecast an increase of at least \$1-billion in military spending for fiscal 1959—on top of the \$2-billion increase estimated for fiscal 1958 because of the growing production of costly new weapons.

Wilson's forecast and the implications of the Symington report point up the rocky road facing Treasury Secy. George M. Humphrey in any drive to trim federal expenditures—particularly in the military field. Rather, Congressional Democrats expect to win additional appropriations—at least for advanced aircraft and missiles.

• **Challenge**—Sen. Leverett Saltonstall (R-Mass.) submitted a lengthy minority report challenging Symington's conclusions and "objectivity." He says that

the majority report "takes an unduly pessimistic view of the state of our defense today and of our planning for the future," and that U.S. military strength is superior to that of Russia.

• **Findings**—Here are Symington's key findings:

• Russia is producing more heavy jet bombers than the U.S. is, but if "adequate funds" were provided, "these limitations could be removed and our present estimated strategic air superiority maintained." Factors limiting U.S. strategic airpower are lack of technical personnel, modern jet tankers and long-range jet bombers, and dispersed bases.

• U.S. air defense is "inadequate" because current fighter-interceptors cannot fly so high as latest Russian bombers, and because of gaps in the radar warning system.

• The growing shortage of skilled Air Force technicians is creating a high aircraft accident rate and results in "our inability to maintain a proper state of alert against possible attack."

• Naval airpower cannot be expected to take up the slack in the "decline" of the Air Force's strategic striking power.

• "Direction and planing of naval strength again leaves the U.S. vulnerable to submarine attack against our



shipping and . . . civilian targets within our heartland."

- While our "qualitative lead" in aircraft is presented as justification for allowing Russia "quantitative superiority . . . the Soviets are rapidly closing the qualitative gap."

- It is essential that we be prepared for both limited and unlimited wars. But "confusion and inefficiency in defense planning have developed from vacillating policies . . . of emphasis." There is insufficient airlift capacity to maintain the "Army's mobility."

- **Recommendations**—In view of the report's wide-ranging criticism, its recommendation is remarkably indefinite. It suggests only that the "deficiencies in military strength . . . be corrected as promptly as possible," and cites "the importance of taking prompt steps to see that the American people are given more of the truth about the relative strength of the U.S. as against the Communists."

- **Minority Report**—Saltonstall's minority report presumably reflects the Administration's views on the Symington criticism. The Republican senator claims that Symington does not give enough weight to the testimony of civilian Defense Dept. officials.

Even more significantly, he argues that it confines its analysis mostly to the years since 1953. "Where we are today," Saltonstall says, "is inextricably bound up with the nation's defense effort made over a much longer period of time." This is an obvious dig at the Truman Administration's rapid demobilization after World War II, and the policy of reducing requests by the Defense Dept. for additional money by an average of 33% annually during the Korean War—compared with Eisenhower's average of 13% cutback.

Saltonstall concludes that "Our airpower and our naval strength, together with our ground forces, make us superior to the Soviet Union today . . . [but] we can never engage in a numbers race with Russia. . . . What we do want are balanced land, sea, and air forces which give us a visible deterrent and such power to retaliate quickly and devastatingly that no enemy would dare to attack us."

- **Progress**—Against this backdrop of charge and countercharge, two events in recent weeks reveal progress on critical points raised by Symington:

- A Defense Dept. advisory committee headed by General Electric's Pres. Ralph J. Cordiner recommended a pay differential plan to encourage re-enlistment of technicians (BW—Oct. 20 '56, p186).

- The Pentagon reported that \$700-million of the \$900-million Congress tagged onto last year's Air Force budget has been committed for development of long-range ballistic missiles.

# LeTourneau Plans a Comeback

The company that was a leader in earthmoving equipment until its deal with Westinghouse Air Brake will reenter the competition with a new line in 1958.

R. G. LeTourneau, Inc., Longview, Tex., a leading earthmoving equipment manufacturer until it sold the bulk of its business to Westinghouse Air Brake Co. three and a half years ago, is planning to try a comeback in the earthmoving field sometime after May 1, 1958.

Since the \$31-million sale to Westinghouse in 1953, LeTourneau has been rocking in rough financial waters. The company started manufacturing other types of mechanical equipment, but met with only limited success. It also continued to make electric motors, but this only accounted for a small part of its business prior to the sale. Until 1953, LeTourneau made earthmoving equipment almost exclusively. And it had a large part of the market. During World War II, LeTourneau provided 70% of all earthmoving equipment used by the U.S.

- **Red Ink**—Although the company's 1956 annual report won't be ready until next month, one LeTourneau official said he had a hunch the report would be written in red ink for the third straight year.

In 1954, the year immediately following the sale of its earthmoving business, LeTourneau lost something over \$5-million. The loss for 1955 topped \$100,000.

The company's president, R. G. LeTourneau, doesn't use figures to explain his decision to go back into the earthmoving business. He simply says he wants to get back into this line "to contribute something more" to a field in which he pioneered.

- **Five-Year Ban**—When LeTourneau sold its earthmoving business to Westinghouse Air Brake in 1953, it agreed not to engage in the manufacture or sale of this type equipment for five years—or until May 1, 1958. Westinghouse took over three LeTourneau plants and set up the LeTourneau-Westinghouse Co. at Peoria, Ill.

At the time of the sale, it appeared that Pres. LeTourneau was more interested in founding and financing a large African religious mission than in accumulating more wealth. A bed-rock Fundamentalist, he proudly and publicly has stated that he has turned over 90% of his considerable worldly goods to "God's work."

- **Production Difficulties**—LeTourneau diverted a lot of his cash to non-business uses. Then he ran into difficulties trying to run his remaining

plants—at Longview and at Vicksburg, Miss.—that were capable of turning out some \$75-million to \$80-million worth of goods a year. The trouble was they were geared for the manufacture of earthmoving equipment—which the company was prohibited from making.

So, instead, LeTourneau turned its attention to new mechanical "monsters." Among these were a jungle tree crusher, an enormous "snow train" for the Army, a new design in ocean-going freighters, a landing craft retriever, a large stump digger. But these contraptions were more startling than profitable. For the most part, they were one-shot contract jobs.

- **New Line**—About two years ago, LeTourneau engineers came up with a revolutionary design for an offshore drilling platform. And since that time, the company's designers have been concentrating their efforts in the development of this profitable line of equipment. LeTourneau is booked up for at least two years with this work, and the company can be expected to get a significant percentage of its future business from this field.

But even so, LeTourneau will have a lot of unused plant capacity on its hands. Projected sales for 1958 for other than earthmoving equipment are estimated at about \$15-million. That leaves the company with capacity for turning out about \$65-million in goods—which could be put to use by a re-entry into the earthmoving equipment business.

- **Revolutionary System**—LeTourneau says the new earthmoving machines he will introduce in 1958 will have the "ultimate in traction and mobility, will be driven by revolutionary electric wheels and will be powered by diesel-electric dynamos similar in principle to those found on modern diesel locomotives."

Basically, the "electric wheel" system is a relatively simple arrangement of high-torque electric motors spotted over every machine and geared directly to the inside of each wheel and to all other points where power is needed.

The new equipment will be marketed under a new trademark, "Ar-Gee" (for Pres. LeTourneau's first two initials), instead of the familiar "LeT" or "LeTourneau."

LeTourneau officials say the company will not manufacture or even take orders for the new equipment until after May 1, 1958.



**SPENDING** Says Secy. Humphrey: "Government expenditures and the number of government employees are now increasing. This trend should promptly be stopped."



**SPENDING** Says Eisenhower: "As long as the . . . people demand, and . . . deserve, the kind of services that this budget provides, we have got to spend this kind of money."

**DEFICIT** On deficit spending by government to counter a depression, Humphrey announces flatly: "I just personally do not believe in it."

**DEFICIT** In case of depression, ". . . there would be no limit, I think, to what should be attempted as long as it was constitutional."

## Two Ways to View Government

Two old friends—Pres. Eisenhower and Treasury Secy. George Humphrey—have been saying a lot about the federal budget recently, but not in the same words. As the quotations above make plain, each has managed to leave a differing impression of what he thought the budget means now—in a time of rising spending by government—and might mean sometime in the future, if depression should hit.

Appearances to the contrary, this doesn't denote an open split in the Eisenhower Administration. Rather, it's a sign of the two differing points of view that have been combined—and so far, successfully combined—in this Administration from its beginning.

• **Contrast**—Eisenhower is setting out, as an innovator, to change the popular conception of the Republican Party before the elections of 1958 and 1960. His Modern Republicanism calls for carefully planned spending on programs the people want—such as defense, roads, and schools—plus a determination to act

swiftly, with all the powers of government, to check any depression.

Humphrey's role is more as a conservator of basic GOP traditions. He doesn't argue against the general outlines of Modern Republicanism. But he's still the most powerful Washington spokesman for his party's traditional doctrine of "fiscal responsibility"—for which a balanced budget is the symbol. This, of course, is also close to Eisenhower's heart. Ideally, the President would like to combine both approaches. It is only when he has to choose one or the other that he tips the scales against the traditional view.

In the case of the current budget, the question is almost academic anyhow. The chances are very slight that the \$71.8-billion budget for fiscal 1958 can be pared below what Eisenhower asked. The tendency in Congress has been to increase the President's budget requests, not reduce them, and that seems to be in the cards again this time.

• **Future**—What about the future,

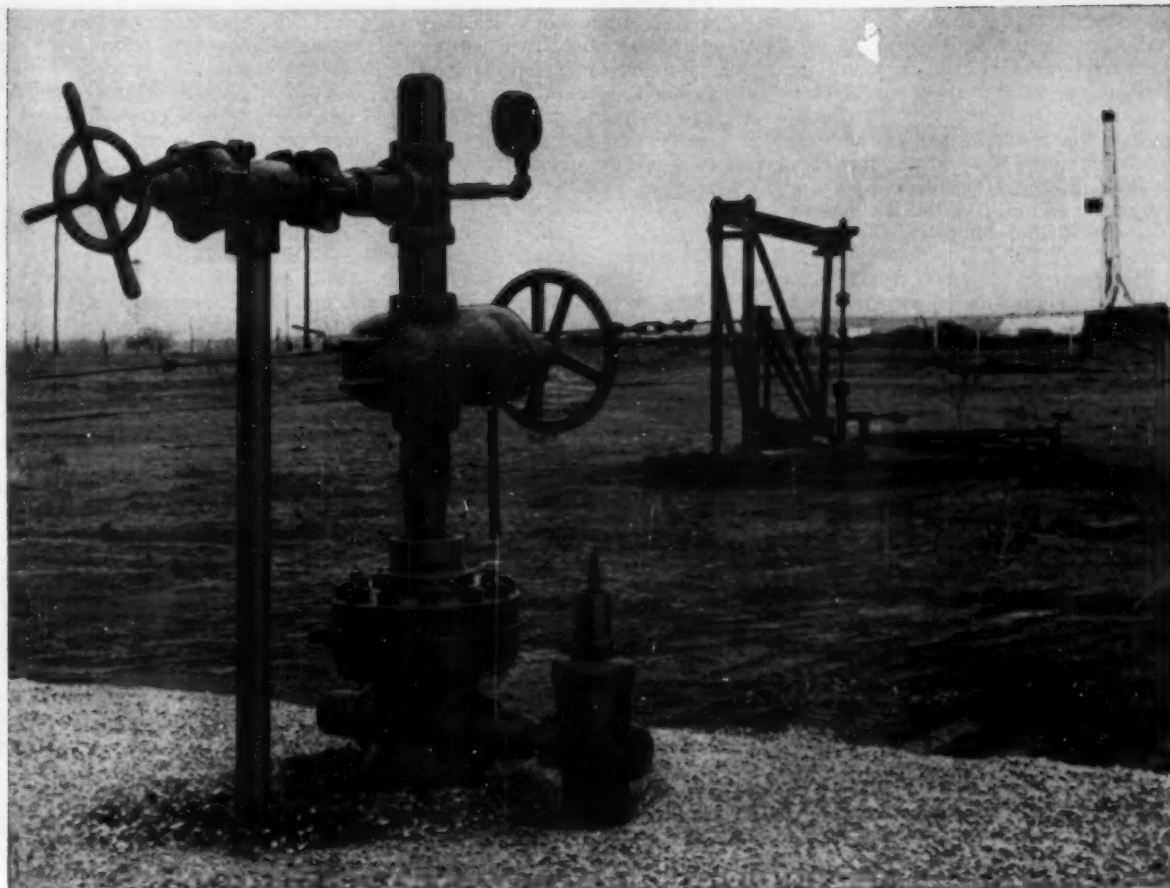
though? If there's a recession, which of the two philosophies will prevail?

Eisenhower's view of the government's role in a downturn has been repeated, in substance, by him and by White House economic advisers many times since the 1952 election campaign: Full federal powers should be used, with due regard to the nature of the crisis.

As demonstrated in the 1953-54 downturn, the Administration would not panic at the first sign of trouble. "But if the thing got serious," Eisenhower explained last week regarding Humphrey's comments, ". . . there would be no limit, I think, to what should be attempted as long as it was constitutional."

In the context of the discussion, this includes letting the budget go into the red.

• **Unconvinced**—Humphrey, on the other hand, remains skeptical. After his first press-conference statement that he would resign rather than use govern-



Additional life found by Sinclair in the 40-year old Garber Field is signified by the "Christmas tree" valve (left) which harnesses a newly completed deep flowing well. To the right stands a pump

still lifting oil from one of the original shallow wells. In the background at far right a derrick marks the site of additional deep drilling in the rejuvenated field.

## Old Faithful of the Oil Fields

*"Garber . . ."*

This was a magic name in 1916, the year the new-born Sinclair company discovered the Garber Field, about 100 miles west of a booming town called Tulsa.

In its first 40 years, Garber produced *more than 60 million barrels* of oil for Sinclair.

Late last year Garber again leaped into oil country headlines. After long, geological study, Sinclair Oil & Gas Company found additional deep-trapped oil in a field that many thought had passed into history. And

Garber should continue to produce for many years to come.

Sinclair's production of crude oil is increasing sharply. And significant new fields found over the past few months in the Louisiana Offshore area, in Venezuela, in Texas, Oklahoma and New Mexico and in the Rocky Mountain area give promise of still greater future production.

**SINCLAIR**

*A Great Name in Oil*

SINCLAIR OIL CORPORATION • 600 FIFTH AVENUE • NEW YORK 20, N. Y.



ment deficits as a counter-cyclical device, he repeated on a nationally televised interview that it is hard for him to see when a deficit would be a useful anti-depression tool. His reasoning: It would so destroy the confidence of businessmen in the future that they would cut their own spending by 8 or 10 times as much as the government deficit—and thus compound the downturn.

Confronted by an actual slump, however, Humphrey might come up with quite the opposite conclusion. Above all, he has proved himself willing to change his mind when satisfied with the evidence.

A case in point is Humphrey's support of the school construction aid appropriation. Though opposed to federal spending in principle, he is in favor of this. He is convinced that the federal government over the past 15 years helped to create the classroom shortage, by forcing diversion of materials and manpower to weapons; he thinks it is only just that the government now step in and try to correct the shortage. He backs the Eisenhower concept of a four-year drive, then withdrawing the federal government from school construction again.

• **Rhetoric?**—Humphrey's views on measures he would favor to meet a depression have all been based on hypothetical questions. And in each of his answers, Humphrey has avoided slamming the door on the use of a deficit. The betting in Washington is that he might well line up for a deficit, if a downturn of major proportions set in.

"George Humphrey thinks of deficit spending as the kind of made-work, leaf-raking boondoggling he saw in Ohio under the New Deal," one high government official who knows Humphrey well points out. "The whole Administration is against that sort of thing."

• **Tax Questions**—In case of a sharp downturn, however, a deficit would be automatic, since tax revenues would drop. The first question for businessmen wondering what course the Administration would take is this: Would it repeat the economic tactics of Herbert Hoover and Franklin D. Roosevelt, in the years 1929-33, and try to cure the downturn by raising taxes on one hand and cutting federal spending on the other?

Eisenhower opposes this method; Dr. Gabriel S. Hauge, his administrative assistant for economic affairs, opposes it; Raymond J. Saulnier, the new chairman of the Council of Economic Advisers, opposes it. If Humphrey adamantly refused to accept a deficit, he would simply be isolated, and his usefulness destroyed. Few who know him believe he would maintain such a position when confronted with the realities of a depression budget.

The second question is whether the Administration would favor cutting tax rates and increasing spending, thus sharply boosting the deficit. These tactics, approved by an overwhelming number of congressmen and economists, would be supported by a solid majority of Eisenhower's key aides. Welfare Secy. Folsom, for example, has long been familiar with these devices, and he is an expert in their application. In the mid-1940s, he was staff director of a House committee drawing up plans to meet an expected downturn, and his reports leaned heavily to federal action.

• **Eisenhower's Choice**—Based on everything Eisenhower has said on the subject, and on the type of economic advice he gets in the White House, there's every indication that he would lean to the side of tax cuts and more spending. He would do this only when it was clear that the downturn threatened to become a major economic disaster.

The timing of the Administration's anti-depression devices therefore becomes the key—not what they would consist of. And on this, Humphrey is in a position to play a strong delaying game. Early in great economic shifts, the meaning of what is happening is always obscured by cross-currents. During this period, the Administration

might find itself unable to take the action Eisenhower believes in as a matter of principle, because of a confusion of counsel. The President, in fact, might be hard to convince that real peril threatened; as one of his contributions to the current discussion, for example, he said: "I don't believe that anything of the character of the [depression of] the '30s can ever occur."

• **GOP Schism**—All this doesn't mean that a split within the Republican Party is out of the question. Eisenhower, in trying to lead the GOP into a new path, risks a revolt by powerful men who disagree with his ideas. He has successfully avoided any such open break for the past four years, but his second term may bring strains too great to be suppressed.

Humphrey is not a likely candidate to lead such a revolt. He is known to have the most intense personal distaste for the course taken by T. Coleman Andrews, earlier Collector of Internal Revenue under Eisenhower and now an active critic of the Administration's fiscal policies. If Humphrey leaves the Administration, he is likely simply to return to private life, retaining his personal attachment to Eisenhower. Besides, a Secretary of the Treasury—even a powerful and popular one such as Humphrey—has no real base of political power.

## Congress May Join In Fiscal Study

White House now isn't averse to compromise bill adding lawmakers to new Monetary Commission.

The Administration this week indicated willingness to compromise and include congressmen on the National Monetary Commission proposed by Pres. Eisenhower to study the entire U.S. financial community (BW—Jan. 19'57,p32).

The White House is understood to have given informal approval to a bill introduced by Rep. Henry O. Talle of Iowa, ranking Republican on the House Banking & Currency Committee. To the nine-member, public, non-partisan board requested by Eisenhower, the new bill would add four members of Congress—the chairmen and senior minority members of both House and Senate Banking Committees.

Talle's proposal is designed to spike the demand by Rep. Wright Patman (D-Tex.) for a monetary investigation conducted solely by the House. It might also mollify the many Democrats who feel Congress shouldn't be entirely counted out of the probe.

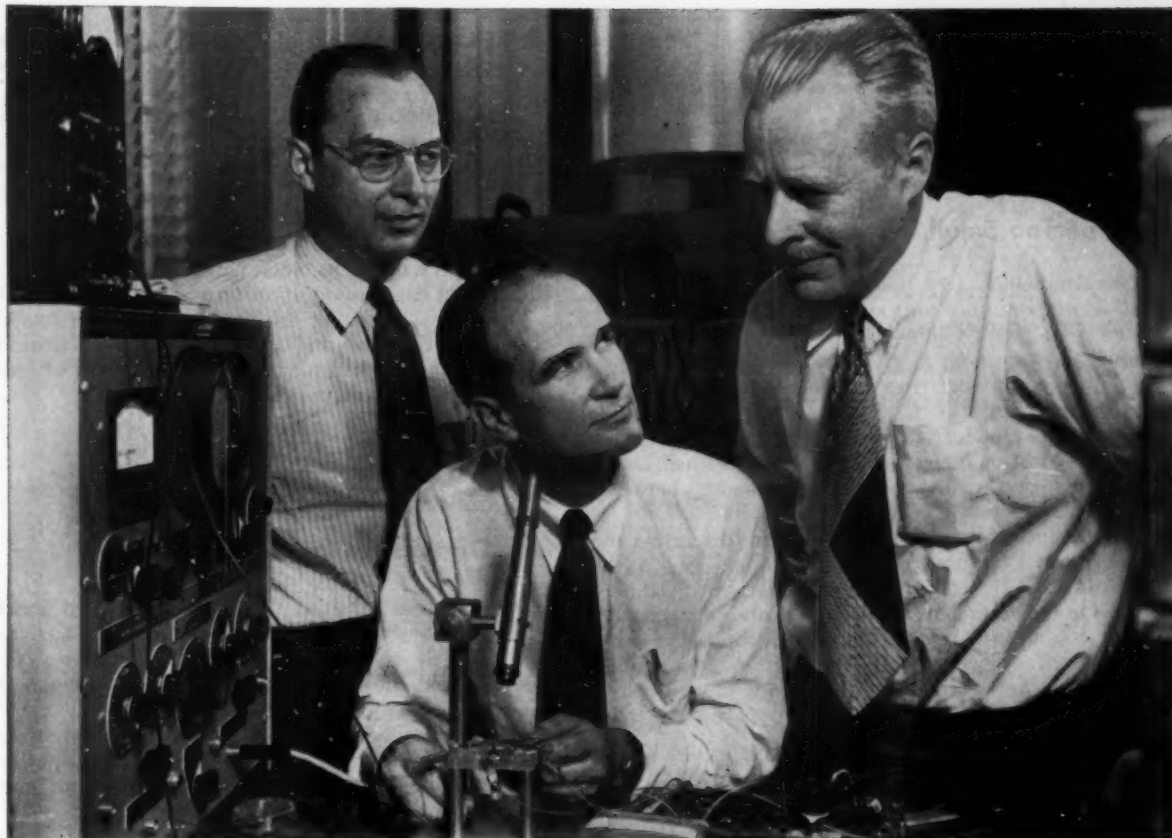
• **Surprise**—Meanwhile, Sen. A. Willis Robertson (D-Va.) announced he will vote with Republicans on the Senate Banking Committee for an all-public

commission. Ultimately, though, a compromise seems most likely.

Kenton R. Cravens, St. Louis banker and former RFC administrator, lent backing to the compromise joint commission. But he did recommend that law require the commission to steer clear of the Federal Reserve System in its inquiries. Not including specific language to that effect, he said, "might possibly be interpreted as a mandate by Congress for the commission to question the Fed's independence."

• **Bank Bill**—Cravens voiced his opinions at hearings conducted by Sen. Robertson on legislation to update laws that govern the five federal banking agencies. One highlight was an appeal from the American Bankers Assn. for what would amount to lower charges by the Federal Deposit Insurance Corp. The pending bill would leave unchanged present requirements that FDIC plow 40% of assessments paid by member banks into the deposit insurance fund every year. ABA wants the figure lowered to 20%, which would mean bigger prorated shares of the annual surplus for refund to member banks.





(Left to right) Dr. John Bardeen\*, Dr. William Shockley\* and Dr. Walter H. Brattain, shown at Bell Telephone Laboratories in 1948 with apparatus used in the early investigations which led to the invention of the Transistor.

## *Bell Telephone System Salutes Three New Nobel Prize Winners*

**Drs. John Bardeen, Walter H. Brattain and William Shockley  
are honored for accomplishments at the Bell Telephone Laboratories**

The 1956 Nobel Prize in Physics has been awarded to the three inventors of the Transistor, for "investigations on semiconductors and the discovery of the transistor effect."

They made their revolutionary contribution to electronics while working at Bell Telephone Laboratories in Murray Hill, N. J. Discovery of the Transistor was announced in 1948. We are proud to have been able to provide the environment for this great achievement.

This is the second Nobel Prize awarded to Bell Telephone Laboratories scientists. In 1937 Dr. C. J. Davisson shared a Nobel Prize for his discovery of electron diffraction.

Such achievements reflect honor on all the scientists and engineers who work at Bell Telephone Laboratories. These men, doing research and development in a wide variety of fields, are contributing every day to the improvement of communications in America.

\*Dr. Bardeen is now with the University of Illinois, and Dr. Shockley is with the Shockley Semiconductor Laboratory of Beckman Instruments, Inc., Calif.



**BELL TELEPHONE SYSTEM**

# In Business

• • •

## New Price Boost on Iron Ore May Be Too Small, Say Some

Cleveland-Cliffs Iron Co. has tacked 60¢ per ton onto its iron ore price for the 1957 Great Lakes shipping season. Cleveland-Cliffs—usually the price bellwether among ore companies in the area—will charge between \$11.45 and \$11.85 per gross ton for standard grades delivered at Lake Erie ports.

Other ore producers viewed the boost with mixed feelings. Most of them thought it was too small; some had been toying with the idea of 10% boosts—between 85¢ and \$1 per ton.

In announcing the 60¢ rise, Cleveland-Cliffs cited increased costs of labor and transportation. But other companies felt that 60¢ would not make up the difference. On the other hand, competitive conditions pressed against too steep a rise. The Lake Superior ore companies are facing increasing competition from other sources, and are worried by the chance of a drop in demand.

• • •

## Bill Blocks Holding Companies To Expand City Banks in Suburbs

Creation or expansion of bank holding companies has been barred by a stopgap bill rushed through the New York legislature at the request of Gov. Averell Harriman. Specifically, the bill blocks until May 1 the formation of a holding company proposed by the First National City Bank of N. Y. as a means of expanding across the New York City line into suburban Westchester (BW—Nov. 17'56,p54).

The legislature acted just as the Federal Reserve Board began hearings on First National City's application to form a bank holding company, under the 1956 federal law giving the Fed the power to pass on applications by nationally chartered banks. Previous New York laws would not have covered First National City.

Now, the legislature will consider a permanent ban on new bank holding companies. If the Fed turns down the present application, the state may not act. But an O.K. by the Fed might be followed by a request by Harriman for a law that bans bank holding companies as a means of stifling competition.

• • •

## High Court Extends Diverting Of Lake Water to the Mississippi

The Supreme Court this week extended until Feb. 28 the diversion of Great Lakes water into the Illinois-Mississippi waterway. The Army Engineers can continue diverting, as needed, up to 8,500 cu. ft. per second

to maintain navigation. Justice Harold Burton retains the authority to modify the order in case of an emergency.

The court also agreed to settle the trade name feud between American Airlines, Inc., and North American Airlines, Inc. A lower court had upset a CAB ruling that NAA's use of "American" in its title constitutes unfair competition with American Airlines.

The Justice Dept. will have to start all over again if it wants to press one of its oldest antitrust cases. Last week, the original trial wound up in Denver federal court with a hung jury, thwarting the government's nine-year-old charge that Union Carbide & Carbon Co. and Vanadium Corp. of America had monopolized production of ferro-vanadium and vanadium oxide.

• • •

## Economy-Minded Westinghouse Puts Off Reactor Project

Westinghouse Electric Corp. has postponed indefinitely the construction of what was to have been the first privately financed atomic testing reactor. The company said the project has been shelved temporarily as an economy measure.

The Atomic Energy Commission had already given preliminary approval for Westinghouse to build a testing reactor in the Pittsburgh area: Plans called for completion of the project by the end of this year.

• • •

## Business Briefs

The Federal National Mortgage Assn. at midweek turned the screws still tighter in the credit market for home builders. Fannie Mae reduced by a half-point the price it will pay for a 4½% home mortgages; the new rates will be from 93¼ to 95¼ of par value.

The ICC gave 17 Eastern railroads the same 5% increase in coach and first-class passenger fares that it had granted in December to all Western roads and eight Eastern majors. New England and Southern lines have asked for the same increase.

**Expansion programs:** Nationally booming road-building plans have moved Caterpillar Tractor Co. to step up its postwar expansion programs, which by 1960 will have taken \$500-million. . . . Southern California Gas Co. plans \$44-million capital spending this year. . . . Weyerhaeuser Timber Co. will build a \$30-million paper mill near Columbus, Miss. . . . South Carolina Electric & Gas Co. has \$29-million construction plans for this year.

The Port of New York Authority had to settle for a 3.54% borrowing cost—the highest it has had to pay since December, 1935—when it raised \$50-million in the public market this week. Only one bid was received for the 30-year bonds. Proceeds will help finance construction, including Port Newark and the Lincoln Tunnel.

# Old man in a hurry

Hold your hat and brace yourself!

Two of the biggest industrial giants — the aircraft and automotive industries — are less than 130,000 working hours old. In that time, the former has progressed from "box kites" to satellites, and the latter has produced more than 2,500 makes of U. S. automobiles.

The Old Man is in a hurry. Millions of manhours are daily going into technological Research and Development — and change! To keep abreast of this dynamic progression calls for tomorrow's technological data today.

*No other machine tool builder in the world can equal Jones & Lamson's industry-wide experience in reducing costs and increasing efficiency with high-velocity production equipment.*

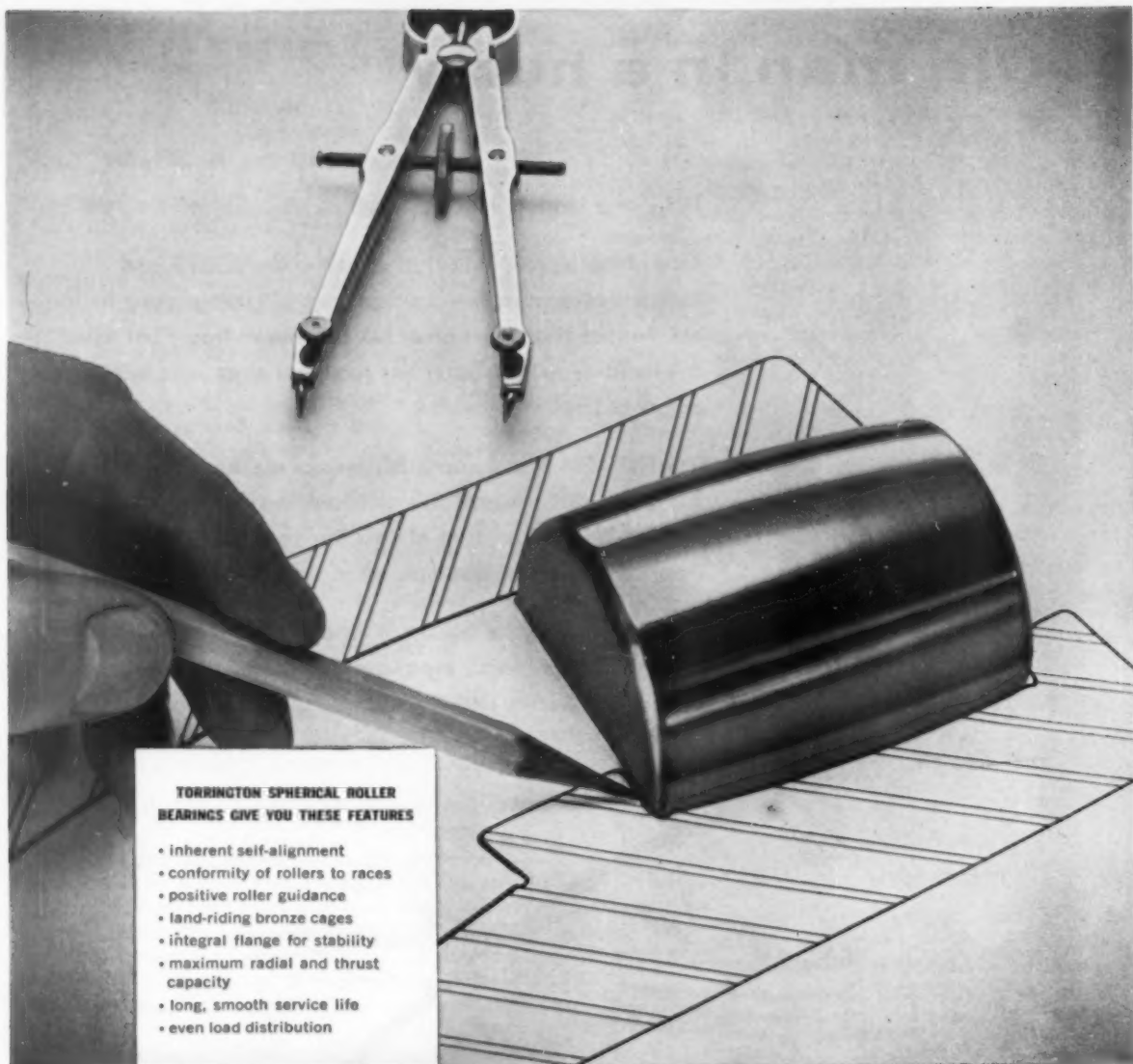


**the man who needs  
a new machine tool  
is already paying  
for it**



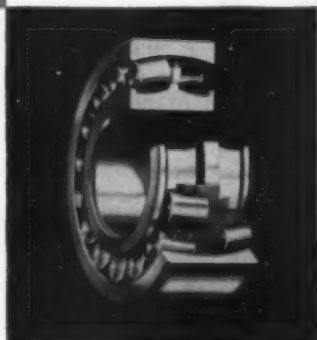
**JONES & LAMSON** MACHINE COMPANY • 503 CLINTON ST. • SPRINGFIELD, VT.

Turret Lathes • Fay Automatic Lathes • Milling & Centering Machines • Thread & Form Grinders • Optical Comparators • Threading Dies & Chasers



**TORRINGTON SPHERICAL ROLLER BEARINGS GIVE YOU THESE FEATURES**

- inherent self-alignment
- conformity of rollers to races
- positive roller guidance
- land-riding bronze cages
- integral flange for stability
- maximum radial and thrust capacity
- long, smooth service life
- even load distribution



## Mated perfectly ~ for life!

Make a point to notice the roller end and center guide flange in a Torrington Spherical Roller Bearing. The perfect mating there means a smoother, longer bearing life.

Roller end and flange surfaces alike are ground to a common spherical radius centered on the common vertex of bearing axis and roller axis. Under all load conditions, the rollers bear lightly but constantly against this flange. This guides the roller positively with minimum friction and prevents skewing. Stress concentrations leading to early failure are avoided, so the bearing will serve you many good turns longer.

This is the kind of feature Torrington builds into its bearings out of its experience with all major types serving in all kinds of equipment. Care for such details is matched only by our care in mating the *right* bearing to the *right* job. In this, your Torrington representative is an expert: call on him when you need help. *The Torrington Company*, South Bend 21, Ind.—Torrington, Conn.

## **TORRINGTON BEARINGS**

*District Offices and Distributors in Principal Cities of United States and Canada*

**SPHERICAL ROLLER • TAPERED ROLLER • CYLINDRICAL ROLLER • NEEDLE • BALL • NEEDLE ROLLERS • THRUST**



# WASHINGTON OUTLOOK

WASHINGTON  
BUREAU  
FEB. 2, 1957



Note Pres. Eisenhower's visit to the Capitol this week—the luncheon with Republican senators. It was billed as a very informal affair. But it's part of a plan for Eisenhower to establish closer, more personal contact with the members of his party in Congress. Aim is to mobilize every possible GOP vote for Eisenhower's second-term programs. It's more than coincidence that this lunch came on the eve of the House vote on Middle East policy, the Symington attack on defense, and just after the school aid message.

It forecasts a real White House push for the GOP program—calculated to win Congressional control in 1958 and hold the Presidency in 1960, when the next general elections roll around.

—•—  
Eisenhower will win his first fight with the Democratic Congress.

That's on the Middle East Doctrine—the plan to use force if necessary to keep Russia out of the Arab nations, plus a blank check aid program to help these countries with their economic problems.

But business needn't expect any quick flow of goods to the Middle East. Export possibilities will be limited, certainly for this year.

—•—  
Here's the situation: Not much of the \$200-million Eisenhower will be allowed to spend in the Middle East will make a demand on U. S. production. Most of it will go to repair damage done to the economies of this area by the stoppage of the Suez Canal—dollars to pay off commitments already made. And, frankly, there will be a leakage to foreign officials—to pay for their support. The government expects this sort of thing in any help to undeveloped areas. And it expects no detailed accounting of how these funds are used.

—•—  
But long-range Middle East assistance will be different. It will pick up where short-term help for loss of oil exports leaves off. It will result in orders for producers of a wide variety of supplies and equipment.

Road building will be high on the list of economic aid for the long pull.

Irrigation equipment will have a high priority, too. At the start, the U. S. will ship surplus foods into the area. But the ultimate aim will be to build up local agriculture—raise the general eating level.

That will mean farm machinery. Exports won't be great, but over the next several years they are expected to run into millions of dollars.

—•—  
Then, there's the matter of electric power. This means technical assistance in planning hydroelectric developments and financing of equipment.

Port facilities will be high on the list. Since the long-term objective will be to increase trade, docks and machinery for loading and unloading ships will be a part of the program.

—•—  
How far will this go, how big will it be? You can't tell at this stage. The only sure thing is that Eisenhower will follow up King Saud's visit here with other gestures to the Middle East in behalf of the Western nations. Congress will O.K. the spending needed for a real start on economic assistance. Best bet in Washington right now is that the rise in U. S. Middle East investment will be measured in the billions over the next several years. Officials say the alternative is a Communist take-over.

# WASHINGTON OUTLOOK (Continued)

WASHINGTON  
BUREAU  
FEB. 2, 1957

## **Congress' investigation of Middle East policies is political.**

What the Democrats wanted was to go after State Secy. Dulles—start the inquiry with 1953, when Dulles came in.

The Republican counter will take the inquiry all the way back to 1946, and thus include the Truman Administration and former State Secy. Acheson. The Democrats didn't want to buy this. But blocking it would have put them in the position of ducking.

Keep an eye on the special Senate election coming up in Texas. It just might upset the Democrats' slim control in the Senate.

Here's the picture: Texas will vote April 2 to fill the seat vacated last month when Sen. Daniel, a Democrat, was sworn in as governor. Under Texas law, the special election will be what politicians call a "sudden death" race. The winner doesn't need a majority of the votes cast. All he has to have is a plurality. As the race is shaping up, there will be one Republican candidate in the field with seven Democrats. It's possible, Texans say, that the split of the Democratic vote could let the Republican win.

A GOP win in Texas probably would mean a reorganization of the Senate. The Democratic edge of 49-to-47 would be cut to 48-to-48, a tie. With the vote of the Vice-President, the GOP would have the edge and could take over control of all Senate committees. The Democrats would become the minority.

## **Chances for Eisenhower's school aid program are improving.**

Desegregation is still the hitch. A rider denying funds to any state that practices segregation would kill the bill, as it did last year.

The President will try to maneuver around this issue. His advice to Republicans in Congress is to vote against any such rider, since the courts already have ruled segregation unconstitutional. If he can hold his party in line when the issue comes up, he will get enough support from the Southern Democrats to put over his \$500-million-a-year program.

## **Unions will try to set the stage this year for 1958 wage hikes.**

Eisenhower's plea for wage and price restraints will be attacked. The President's position is: Industry should go easy on price rises and labor should go easy on pay demands—gear them to productivity rises—to help the Administration's fight on inflation.

The unions want a hearing. The word was passed at the Miami meeting of the AFL-CIO executive council that Sen. Douglas, the Illinois Democrat who now heads the Joint House-Senate Economic Committee, will delve into the Eisenhower approach. Unions will argue that wage boosts should not be limited to productivity gains, but should also be paid out of profits. They will charge that when wages rise and the increase is passed along by management in the form of higher prices, the price rise exceeds the wage cost. The hearings probably will come in the spring.

There's a dump-Stassen move in Congress. The President's disarmament planner lost favor in the party last summer when he came out against Nixon as the second-term Vice-President. His latest observation that Nixon might have cost the party control of the House and Senate has Nixon partisans boiling.

# 86% of your welding costs are in labor and overhead...

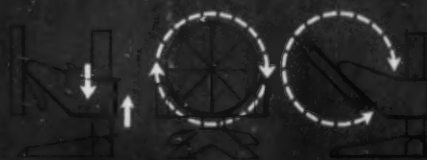
**P&H**  
**welding  
positioners  
can slice that  
in half!**

The greatest savings you can realize in your welding operation lie in how you *handle* your weldments.

Are your operators waiting for cranes . . . rolling heavy weldments laboriously by hand . . . welding in awkward, tiring positions that affect both operator efficiency *and* weld quality? These are the factors that send labor and overhead costs skyrocketing. These are the factors that account for 86% out of each welding dollar. However, we'll show you how the use of P&H Welding Positioners frequently cut this cost *in half*.

Interested? Of course you are. Write for the facts. Address: W. R. Stephens, Sales Manager, Dept. 308 A Welding Division, Harnischfeger Corp., Milwaukee 46, Wis.

Photo courtesy Lakeside Bridge & Steel Co., Milwaukee, Wisconsin.



All standard P&H welding positioners give full elevation even under capacity load, 360° rotation, 135° tilt.

## HARNISCHFEGER

**P&H**

WELDERS • ELECTRODES • POSITIONERS

Milwaukee 46, Wisconsin

# There's always with Trane





# room at the top air conditioning

*One more example of how Trane flexibility  
saves remodeling headaches . . . and dollars, too!*

Wondering where to put air conditioning refrigeration equipment in a building that wasn't designed for it? You may find, as others have, that "there's always room at the top"—when you use TRANE equipment. It's *adaptable!*

Take refrigeration compressors such as the TRANE CenTraVac, left. You can generally fit these anywhere from basement to rooftop with little or no costly building alterations, because they're so simple and compact.

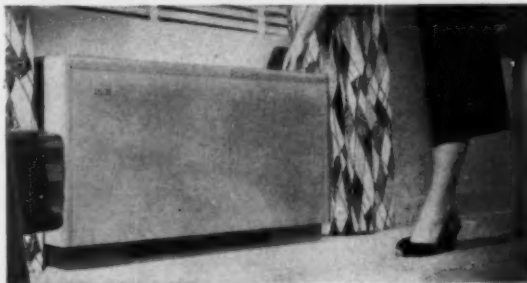
Quiet, vibration free CenTraVacs have been installed next to offices, hotel guest rooms, even libraries. And they're automatic, need no full-time attendant.

◀ **40 stories high**, a TRANE CenTraVac settles to roof of New York's Barbizon Plaza Hotel. Two such machines will provide cooling equal to the melting of 1,200,000 pounds of ice in 24 hours. Thrifty CenTraVacs automatically supply only the cooling that changing conditions require.

**UniTrane air conditioners** give each ▶ occupant the climate he wants. Individual units can be shut off when cooling isn't needed. No wasted air conditioning.

Flexible, too, are UniTrane air conditioners. You can install these individually-controlled room units in big-building systems with minimum disturbance to occupants . . . at minimum cost. In year-round air conditioning, they cool or heat, ventilate, filter, dehumidify. As part of the industry's most complete line, they come in varied models to meet varied requirements in any system, any building.

So when you are planning air conditioning discuss TRANE with your architect or engineer. Refer them to your nearby TRANE Sales Office or write TRANE, La Crosse, Wis. You may save headaches—and money, too.



*For any air condition . . . turn to*

# TRANE

MANUFACTURING ENGINEERS OF  
HEATING, COOLING, VENTILATING  
AND HEAT TRANSFER EQUIPMENT

The Trane Company, La Crosse, Wis. • Eastern Mfg. Div., Scranton, Pa. • Trane Co. of Canada, Ltd., Toronto  
90 U.S. and 19 Canadian Offices

## MARKETING

# Paris Says Oui Oui To Discount House



**SMALL SHOP** is birthplace of new idea in Paris: the discount house. Now operation needs . . .



**BIG SHOP** In March, discounter Gattegno moves to new quarters. He'll call it Chez Monsieur 20%.

Chez Monsieur 20%, a cut-rate store à la American, is a break with the French tradition of small, high-markup shops. But proprietor Maurice Gattegno cites burgeoning sales as proof that the idea has caught on.

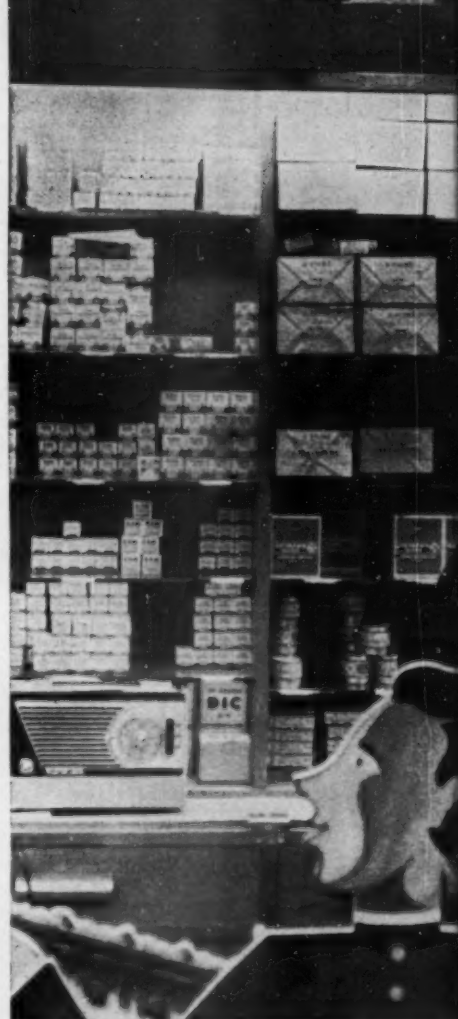
"**M**OST FRENCH retail groups are living in the Middle Ages economically. Me? I accept the fact that I live in the 20th Century."

So Maurice Gattegno, known to his native Paris as Monsieur 20%, sums up the attitude that has made him probably the most controversial storekeeper in France. Monsieur 20% has introduced the discount house (pictures) to a nation that for generations has done its buying at small, low-volume, high-markup shops.

Since World War II, the lumbering, high-cost French retailing system has been slowly streamlining itself. Despite tradition, and laws that favor small stores, the U.S.-style supermarket, chain store, bargain basement, and easier credit are no longer complete novelties to Gallic shoppers. For the last two years, Gattegno has been demonstrating to consumers the mysteries of discount buying in Studios Wagram, his smallest shop near the Arc de Triomphe.

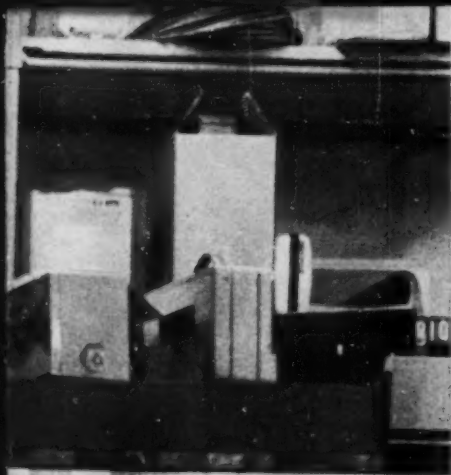
• **Reaction**—The French have reacted with a flurry of comment—in the Paris trade and public press and in the National Assembly. Gattegno's venture was even the subject of a special report to Washington by the U.S. Paris Embassy. Although Gattegno admits that quiet discounts on the side to favored customers are common, as a system the discount house is brand-new in Paris. While the full impact is still to be felt, many observers feel it may prove as shattering in France as the discount house has proved in the U.S. Andre Romieu, president of the French Federal Union of Consumers, a powerful group that includes most of the trade unions and influential consumer organizations, says, for one, "Gattegno has started something that I believe could have a profound effect on our distribution system."

Some retailers frankly oppose the



**MONSIEUR 20%** high on his perch,





overlooks his discount operation.



**CATALOGUE** shows puzzled customers regular price and discount savings.



**SALESMAN** explains to French housewife why prices are so low.

**CROWDS** flock to Paris discount shop where market is as eager for bargains as U. S. shoppers are.



# Now Heyer offers Push-button Duplicating

...at little more than the  
price of some  
hand-operated  
machines



**Heyer** MODEL 76  
*Mark II*  
**CONQUEROR**  
SPIRIT DUPLICATOR

**\$299<sup>50</sup>**  
Plus Tax

Every office duplicating job can be done much more easily on the new Model 76 Mark II Conqueror automatic electric duplicator. It delivers 110 clear, crisp copies per minute in 1 to 5 colors . . . at a fraction of a cent per copy. Its constant speed produces better and more uniform copies; it frees the operator so that the copies can be observed; and most important . . . there's no effort on the operator's part, for this new Conqueror runs without watching, and even turns off automatically. The Model 76 Mark II offers all this, plus new engineering improvements . . . at a price that can't be matched!

#### NEW ENGINEERING FEATURES:

- Lurch-free Feed Drive Mechanism
- Positive High Precision Clutches
- Nylon Gears that need no oiling
- Handy 11" and 14" Cylinder Stop
- Smooth-operating Motor Drive
- Fully automatic Start-and-Stop

The **HEYER Corporation** 2-2-57  
1823 S. Kostner Ave., Chicago 23, Ill.  
☐ Send additional Mark II information.  
☐ Please arrange demonstration.

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_

idea. Others who would like to follow Gattegno's lead are holding back. The pioneer discounter's road in France is no easier than it was in the U.S. Right now Gattegno is locked in a lively, David-and-Goliath legal tussle with Thomson-Houston Co., big French radio, TV, and appliance manufacturer. This battle is the first solid legal test of an anti-price-fixing law that dates back to 1953. Many retailers are waiting to see how this comes out before they try discount selling.

• **Solid Convert**—Gattegno has been a solid convert since 1954. That year, he visited the U.S. for four months. In those days, he was running a modest photographic supply business, and he counted it a good year if he grossed \$25,000. One day, in White Plains, N. Y., he walked into his first discount house. "I was amazed. The idea was so simple, yet it worked so well."

Back home in Paris, he tried the idea himself. The first month he sold more than his usual take for 12 months had been. "They were lining up in the streets," he says. In his first year of discount selling, he rang up a gross of \$730,000. Last year, sales climbed to \$1.2-million. He's gunning for well over \$2-million in 1957.

• **U.S. Formula**—Gattegno took over most of the U.S. discounter's formula (BW—Oct.13'56,p176): low markup, volume sales, with frills pared to keep overhead down. He has a total force of 20, counting himself, but only four salesmen. He carries a light inventory, offers no home deliveries—and 98% of the sales are cash.

Every item the store sells is listed in a bright yellow catalog that the customer picks up when he comes in. Besides each item listed there are three columns. One shows the manufacturer's "recommended" retail price (imposed prices theoretically are taboo). This price includes a markup of from 20% to 60%, with around 35% the average. Gattegno deducts 20% from this, to get his price, shown in the second column. To underscore his point, he shows the amount the customer saves in the third column.

That 20% deduction allows Gattegno an average 17% markup. In addition, though, he gets a 2% discount for paying cash, plus a special 4% year-end rebate for heavy ordering. Few retailers can earn these extra rebates.

• **Same Problems**—If Gattegno has repeated U.S. history in his methods, he is also repeating it in his problems. Like U.S. discounters, Studios Wagram needs brand merchandise—and he can't get as much as he would like.

Some manufacturers, it's true, have refused to heed complaints that Studios Wagram is waging a "senseless economic war." The French branch of Eastman Kodak says, "We'll sell to

anyone who puts up the cash." Today Gattegno is one of French Kodak's biggest buyers. Other U.S. brands include French-made Remington electric shavers, imported Sunbeam Mixmasters. The rest of his suppliers are well known French or European brands.

Big Philips Co. will let him sell its home appliance line, but allegedly balks at selling Philips radio and TV sets. Frigecco, independent distributor who handles General Electric products plus some of its own, also allegedly refuses its refrigerators. "But I can't fight them all," says Gattegno, "so I settled on Thomson-Houston as my test case."

• **Legal Issue**—When Thomson-Houston stopped selling Studios Wagram its radio and TV sets in April, 1955, Gattegno promptly sued under the untested anti-price-fixing law. Today certain government officials confess they are not sure what the law does prohibit, though the Ministry for Economic Affairs recommended the case to the Paris criminal court for trial. At present both sides are furiously swapping legal memos in preparation for the hearing.

Thomson-Houston says its refusal to sell doesn't stem from the discount pricing. It complains, rather, that Gattegno's selling and service facilities aren't up to standard, and that for a time, at least, he wasn't really giving the 20% discount he claimed.

Chiefly, though, it bases its complaints on dealer complaints that they are becoming demonstrators of products the customers buy at Gattegno's. All Thomson-Houston dealers have exclusive territorial rights, and Studios Wagram does business anywhere.

• **The Stakes**—Gattegno insists that the manufacturer stopped selling to him because Gattegno disregarded the list price. He hopes, too, to get a ruling against exclusive territorial contracts.

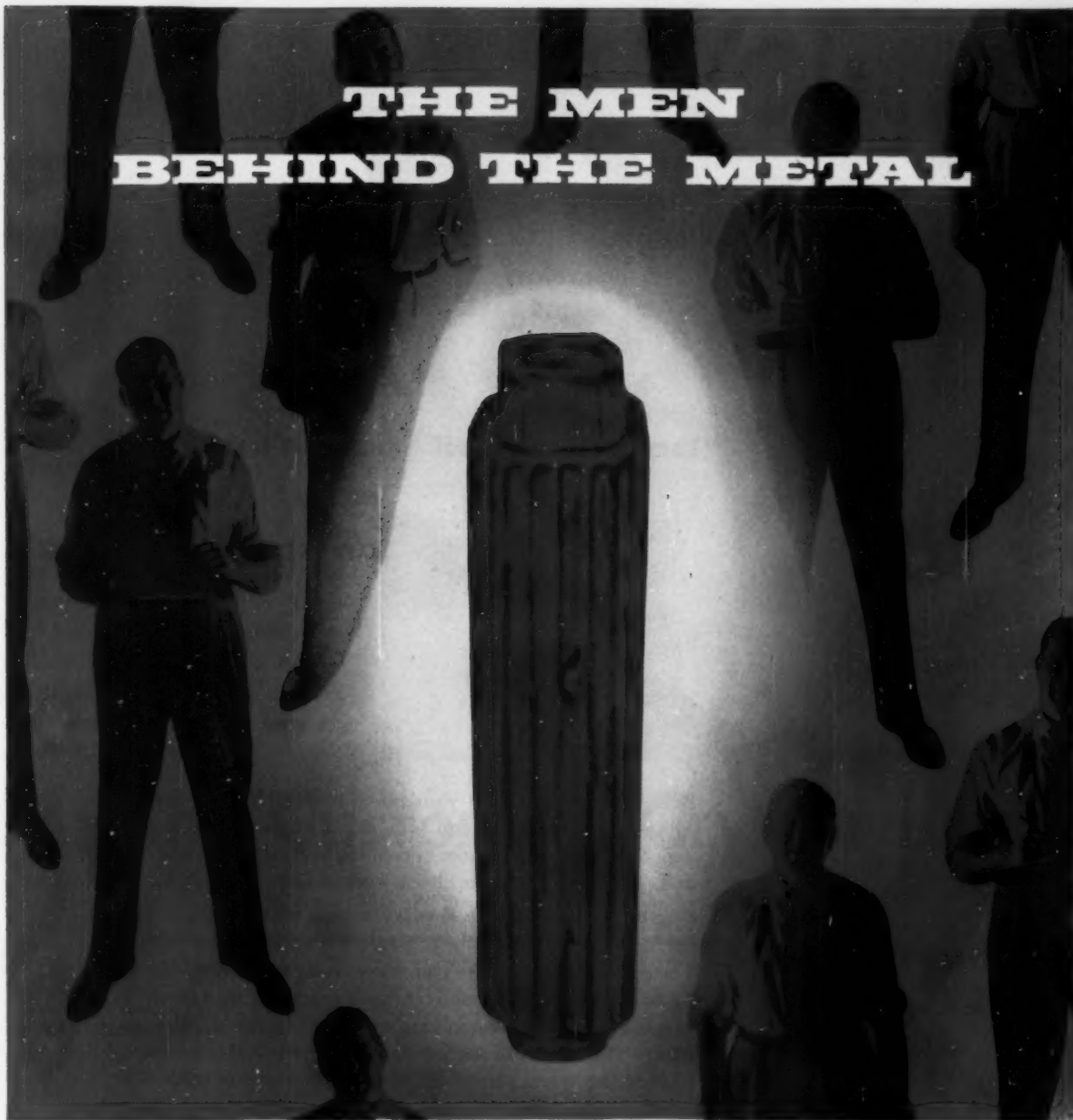
The stakes look large. There's little difference between U.S. and French buyers, Gattegno maintains. "Both want quality brands at the lowest possible prices. Neither wants junk at any price."

Even with low incomes, Gattegno is convinced there's a mass French market for household equipment. A recent survey by the French Institute of Public Opinion revealed that only 6% of the working class owns a refrigerator and that 30% planned to buy one. The booming Frigidaire division of General Motors (France) near Paris estimates that 50% of the nation's 13-million families have the money to buy refrigerators.

Despite all the hurly-burly, Gattegno is thinking in ever-bigger terms. So far, he sells photo equipment, radio and TV sets, and household appliances. Next month he is moving to bigger quarters near the busy Gare St. Lazare. Then he may branch into ready-made clothes and infants' wear. **END**



# THE MEN BEHIND THE METAL



The making of quality leaded alloy electric furnace steels is a highly scientific job. The planning, the constant study, the checking of minute details by skilled metallurgists, that go into the creation of one billet of leaded steel, represent one of the highest forms of industrial craftsmanship. At Copperweld, manufacturer of the most diversified line of lead treated and carbon steels, a staff of skilled metallurgists is constantly at work to insure Copperweld's leadership in the production of hot rolled blooms, bars and billets.



Our staff of field metallurgists is at your disposal to assist you in the selection of the best steel for any purpose. A call to a district office in any major city is all that is needed to bring this service to you.



**COPPERWELD STEEL COMPANY • STEEL DIVISION • WARREN, OHIO**  
EXPORT: Copperweld Steel International Co., 225 Broadway, New York 7, N. Y.



**"Do-It-Yourself" doesn't pay  
on special tooling**

Even the handiest "do-it-yourselfer" will call in a specialist if the cabinet he wants will require filling his basement with a lot of expensive special equipment—tackling several unfamiliar operations—and spending long hours at the work bench.

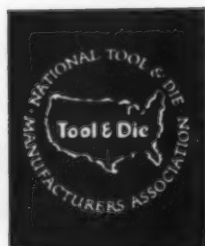
**So why build your own special tooling when you can have it made better, faster and more economically on the outside?**

The contract tool and die plants are ready to handle your toughest tooling problems. They deliver *faster* than your own force because they have been solving similar problems for other production plants. They turn out the job *more economically* because they have facilities and personnel geared to this type of work. They provide a *superior* job because of their combination of experience, skills and specialized equipment.

In addition, you avoid major expenditures for tooling equipment, put your best men and your costly space to more profitable use, and devote your entire energies to your main task—*production*.

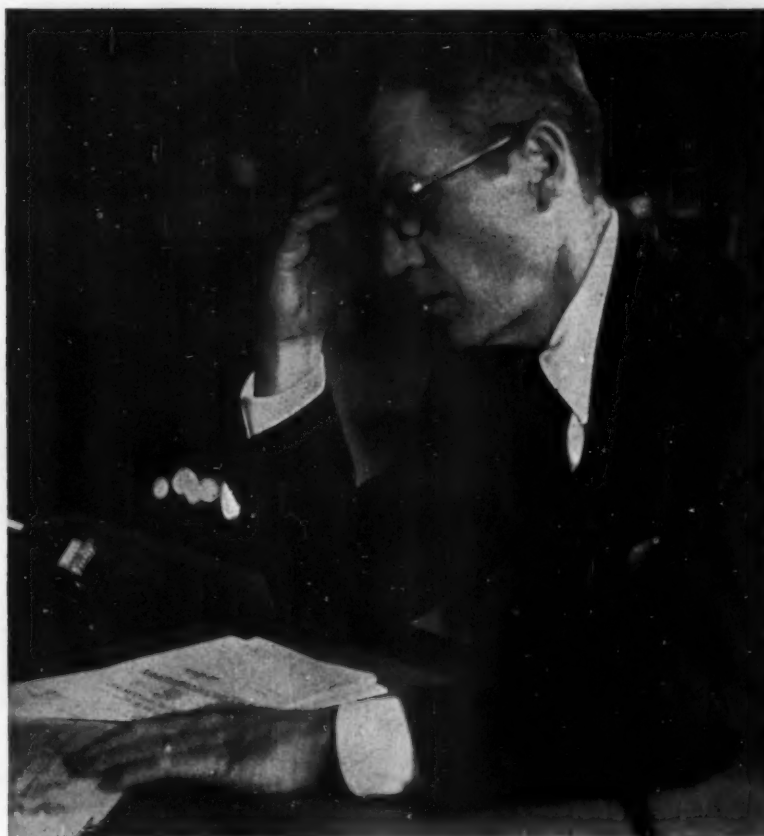
So why "do-it-yourself"? Save money. Let the contract tool plants do it for you. Write for the new NTDMA Directory of Member Plants and Services.

**National Tool & Die Manufacturers Association**  
907 Public Square Building, Cleveland 13, Ohio



**IT PAYS TO GO OUTSIDE FOR SPECIAL TOOLING**

Chmn. J. Irwin Miller (right) of Cummins Engine Co. is keeping his company independent, selling diesels even to equipment manufacturers who have their own engines. He sells his products by . . .



## Making Customers Cry for It

One name amid the scores on display this week at Chicago's Road Show which the milling throngs of truckers, highway construction men, and manufacturers can hardly fail to notice is Cummins Diesel.

For one thing, Cummins Engine Co. of Columbus, Ind., is exhibiting eight engines, three of them new:

- A 60-hp. job to serve the market in small shovels, generator sets, pumps, compressors, and farm tractors.

- A 375-hp. engine for off-highway trucks.

- A new V-8 turbocharged diesel now in the process of field testing for over-the-road and off-highway service.

Besides that, Cummins diesels are being shown in some 45 pieces of off-the-road equipment made by more than 20 original equipment manufacturers—including two of Cummins' chief competitors, General Motors Corp. and Mack Trucks, Inc.

- **Half the Market**—To anyone making or using heavy-duty equipment, this record number of exhibits for Cummins is no surprise. Since 1952, Cummins engines have each year powered more than half of all the new diesel trucks sold.

Before that, GM's Detroit Diesel Engine Div. was almost on a par with Cummins. The two of them just about split 75% of the market, and Mack had the lion's share of the rest. Now the ranking in truck engine sales goes like this: Cummins, 55%; Mack, 36%; Detroit Diesel, 8%; all others, 1%.

- **Still Not Biggest**—However, this performance in the truck field doesn't make Cummins the biggest maker of high-speed diesel engines. There are no official figures, but the industry estimates that Caterpillar Tractor Co., which makes its own engines for a broad line of construction equipment, holds that spot, with Cummins and GM neck-and-neck for second place.

What has happened in the truck market points up (1) the hard-selling tactics of Cummins, and (2) what the construction equipment industry can expect from Cummins in the next few years.

### I. Two Ideas

Cummins is wedded to a couple of key ideas that run counter to industry trends. They stem from the thinking of J. Irwin Miller (picture), 47-year-

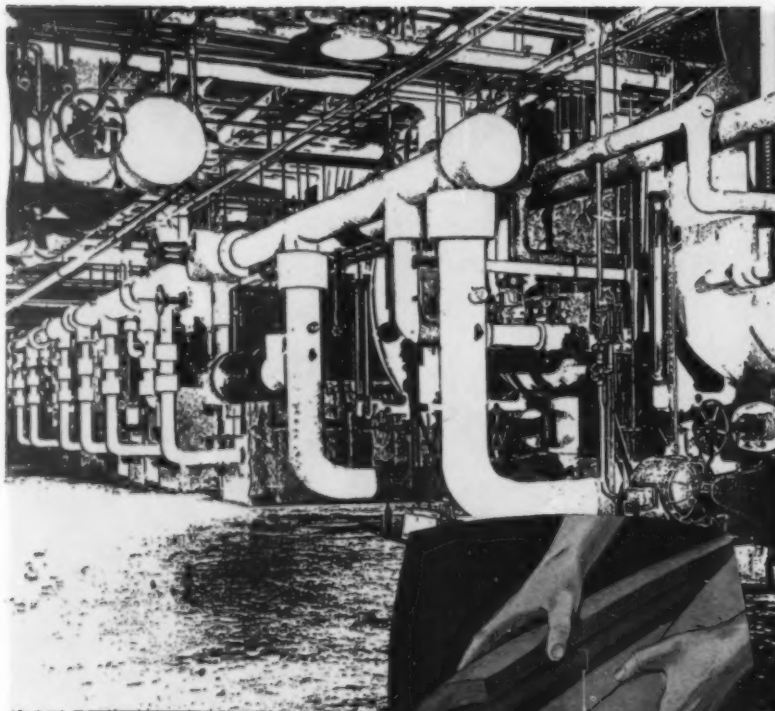
old chairman and a member of the old Hoosier family that owns some 65% of the company. The ideas have been working lately—the company's 1956 sales topped \$100-million, an increase of \$20-million over 1955.

Basically, Miller insists on two things for Cummins:

- It will remain independent.
- It won't diversify very far from its present business. Gas turbine engines are the only major possibility.
- **Strategy**—These two principles aren't the whim of jealous family control or the sign of stunted ambition. They are part of a well-thought-out strategy to put Cummins in the best position to grab its share of business.

To live with them, Cummins has had to solve the marketing problem that's faced in some degree by any independent supplier of components that go into somebody else's end products. That problem is to create enough demand among ultimate users for your component to compete not only with other suppliers but even with the end-product maker's own similar component.

Failure to solve this problem has been a big reason why many an inde-



## How to insulate pipe better—and quicker than you can say "SNAP\*ON"!

"Snap\*On" is the name, and that's the way you apply it—simply spread the single seam and snap it over hot or cold piping. Result: you save heat and cold, time, and money with this unique one-piece pipe insulation molded of fine glass fibers.

A list of Snap\*On's other properties reads like a "pipe dream" come true: It's 4 to 10 times lighter than conventional insulations! It comes in 3-foot and 6-foot monolithic sections, in sizes up to 33 inches! It's resilient, tough, shockproof, permanent! Its thermal efficiency is superior to that of any other general purpose pipe covering on the market!

Small wonder that Snap\*On continues to capture an ever-growing share of the pipe insulation market . . . and that a new production line goes "onstream" this month to help keep pace with the spectacular demand.

Snap\*On distributors in 62 cities, listed in the Yellow Pages under "Gustin-Bacon Insulations" can furnish you samples, prices, and delivery from local stocks. Call your local distributor today, or

WRITE FOR SNAP\*ON PIPE INSULATION BROCHURE

**GUSTIN-BACON** Manufacturing Company

Thermal and acoustical glass fiber insulations • Pipe couplings and fittings  
Molded glass fiber pipe insulation

210 W. 10th St.

Kansas City, Missouri



\*Reg. Trademark

"... 'didn't have a single year in the black from 1919 until 1936' . . ."

CUMMINS starts on p. 51

pendent supplier in the postwar years has had to throw in its hand. Some have let themselves be absorbed by end-product producers. Others have gone into other fields to find a market.

• **Drawbacks**—Miller sees disadvantages in both of these solutions:

• In merging: "One big reason for remaining independent is that no manufacturer of equipment that uses our engines can offer us enough business to warrant a merger."

• In diversifying: "This may be counter to trends, but we believe that by diversifying you are liable to lose confidence in the value of a good product. I don't believe business is built on financial statistics—so we elected to take our engines and develop them even more intensively."

• **Basic Problem**—But this still leaves the basic problem unsolved. For Cummins it was a double one.

First, as the pioneer maker of diesels in competition with gasoline engines, it had to sell the whole idea of these more expensive power plants. From its start in 1919 until comparatively recent years, Cummins was fundamentally a research company for the development of light-weight, heavy-duty diesels. Says Miller: "We didn't have a single year in the black from 1919 until 1936." In those years, Cummins accumulated a \$1-million deficit.

At the time, equipment manufacturers who had their own gasoline engines obviously weren't interested in helping Cummins sell diesels. So Cummins did the next best thing. As Cummins people put it: "We sold the manufacturers through the back door by cultivating diesels as replacement engines among equipment users."

• **Diesel Boom**—But the first big boom in diesels didn't come until General Motors and Caterpillar entered the field shortly before World War II. With their own engines, they began to promote diesel-powered equipment.

Even though this helped open the market, it was a trend that could spell trouble. Caterpillar was a big potential customer that got away from Cummins. And General Motors, with its Truck & Coach Div., was another. In 1953, GM bought out Euclid Road Machinery Co., another Cummins customer.

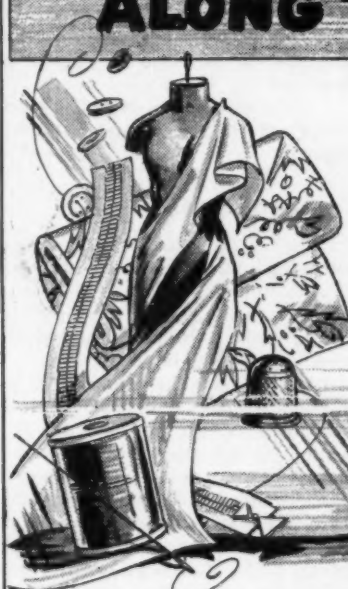
Right now, both International Harvester Co. and White Motor Co.—two big Cummins customers—are developing diesel engines of their own.

Thus, though it has captured a large



# ALONG THE WAY...OF **TWA**

## 40,000 DRESSES A MONTH



**FAST DRESS DELIVERY**  
 BY **TWA AIR FREIGHT** KEEPS SALES  
 ZIPPING UP...INCREASES TURNOVER FOR  
 GIMBEL BROS., N.Y., DEPARTMENT STORE.  
 SHIPMENTS FROM SHELBY MANUFACTURING  
 CO., INDIANAPOLIS, VIA **TWA** ELIMINATE  
 STORAGE COSTS. CUT HANDLING EXPENSES.  
 PROVIDE CUSTOMERS NEW, FRESH MERCHANDISE!  
**SHIP AT LOW SPECIFIC COMMODITY RATES...**  
**SHIP TWA AIR FREIGHT!**



**SUPER-G "BOOKED AIR FREIGHT"**  
 FOR FAST, ON-SCHEDULE DELIVERY  
 OF YOUR SHIPMENTS THROUGHOUT  
 THE COUNTRY... "BOOK" THEM ON  
**TWA SUPER-CONSTELLATION**  
 FLIGHTS ... **CALL TWA** ...



**SHIPPING OVERSEAS?**  
 OVER 60 TRANSATLANTIC  
 CROSSINGS A WEEK INCLUDING  
 ALL-CARGO **TWA SKY MERCHANT**  
 SERVICE...BETWEEN 60 U.S.  
 CITIES AND 21 MAJOR TRADING  
 AREAS IN EUROPE, MIDDLE  
 AND FAR EAST!



*All TWA Flights carry Air Mail,  
 Air Express and Air Freight*

**TWA**  
 TRANS WORLD AIRLINES  
 U.S.A. - EUROPE - AFRICA - ASIA

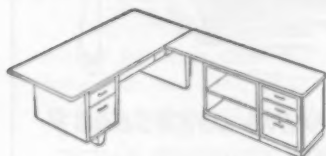




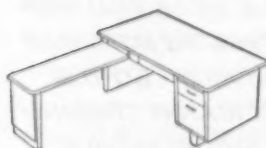
**"Any Way You Figure It...**

**ASE STEEL FURNITURE**

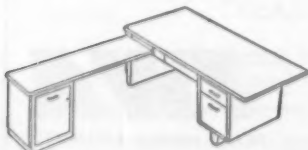
**Pays Big Dividends"**



ASE Office Furniture pays big dividends in appearance, increased working efficiency ... better space utilization.



Shown here is the new convertible, convenient ASE L-Unit. Choose a basic desk unit. Then let your ASE Dealer help you select the drawer cabinets, bookcases, storage and file units that fit your particular office needs. Designed for greatest flexibility.



New, rich, dramatic colors ... harmonizing tops of Linoleum, Textolite or Formica.

There's an ASE Dealer Near You



**ALL-STEEL EQUIPMENT INC.**

**AURORA, ILLINOIS**

share of the 170,000-a-year diesel market, Cummins' problem—if less intense—today remains what it has been:

- To develop the diesel market itself—only about 15%-20% of new trucks of at least five tons (the kind adaptable to this type of engine) are dieselized.

- To make sure enough ultimate equipment users demand Cummins engines.

## II. Advantages

Actually, there are some real competitive advantages in Cummins' position—stemming both from the nature of the diesel engine business and Chmn. Miller's belief in an independent, one-product business.

A diesel engine is more than just another major component. It is the heart of a piece of equipment. It is high-priced but, from a user's point of view, first cost is far less important than operating and maintenance costs, reliability, and performance. As a result, surveys show that a high percentage of diesel-equipment users specify the engine they want, because it is so vital to their operations.

- **Something to Sell**—This leaves plenty of room for Cummins to sell what it has to sell—unit cost of operation—even to manufacturers like GM that have their own engines. Customer preference can work in Cummins' favor. Even GM's Euclid division offers Cummins engines as optional equipment.

This preference, of course, has to be built into the engines. So Miller's decision to concentrate on nothing but making better diesels—a tough, exacting, close-tolerance manufacturing job—gives it a big leg up on other makers, Cummins believes.

Then there is another advantage. Since Cummins makes no equipment, competitors of companies that make both engines and equipment are more likely to prefer the non-competing Cummins as original installation.

## III. Promotion

These advantages add up to a big opening still for an independent like Cummins. The sales and earnings record shows it. Sales have risen from \$20-million in 1946 to more than \$100-million 10 years later, earnings rose from \$1.1-million in 1946 to \$4.5-million in 1955.

If you ask Miller why Cummins has been so successful, he'll tell you: "We have proceeded from one failure to another—every engine at some stage has been a turkey. We try to salvage what we can." Then he adds: "You never count the cost of fixing trouble—if we did, we would be scared to



*... two field instruments that help*

## **REDUCE THE GAMBLE IN OIL EXPLORATION!**

Analyzing drilling muds for clues to a well's potential yield helps shorten the odds in oil prospecting. To do the job right at the well site, Perkin-Elmer supplies two rugged yet highly sensitive instruments: the P-E Flame Photometer for measuring the electrolytic content of drilling muds and the P-E Vapor Fractometer for analyzing the hydrocarbons present in the return mud-

stream. Both instruments give results many times more accurate and more rapid than those obtained by conventional hot-wire and wet chemical methods.

Instruments for industry, advanced electro-optical systems and components for national defense—these are the products Perkin-Elmer designs and makes at its unique facilities in Norwalk, Connecticut.

**Perkin-Elmer** *Corporation*  
NORWALK, CONNECTICUT

*Electro-optical instruments for industrial research and control • Electro-optical systems development and production for the military*



**YOURS**

on request:

this informative book

to help you select

the right paper

for each of your

business records

**Parsons**  
**PAPER**

...makers of permanent  
prestige business papers



WRITE ON YOUR BUSINESS  
LETTERHEAD FOR BOOKLET  
IF3: PARSONS PAPER CO.,  
HOLYOKE, MASS. © PFCO  
1956



## "... the technique of going over the manufacturer's head in advertising ..."

CUMMINS starts on p. 51

death. Our cost estimates don't include any such figure."

If you ask other Cummins people, they'll tell you:

- A better fuel system, introduced in 1953, gives 15%-20% more fuel economy and cuts down on weight, maintenance, and the complexity of parts.

- Their distribution setup assures equipment users of quick, reliable service. These distributors, some 215 main centers and branches, are also franchised dealers who sell directly to users. Since they handle nothing but Cummins engines, they are experts on them.

- **First-Class Promotion**—There's no doubt that both these factors have been important. But you can't overlook the effect of Cummins' hard-hitting promotion. It's based on one written concept: "Never lose our identity."

This has been practiced ever since Clessie Cummins, honorary chairman, first installed a diesel in a Packard and drove it—non-stop—from Columbus, Ind., to New York, where it became the hit of the 1930 auto show.

Cummins doesn't have to engage in that kind of promotion today, although it isn't reluctant to spend big money where it counts. At Chicago, for instance, it took over St. Hubert's Old English Restaurant to entertain customers at a cost of \$10 to \$15 per twosome of Cummins' man and client.

Miller himself insists that, to match a first-class engine, promotion has to be first-class.

- **Advertising Pitch**—On advertising, he says: "See what the other guy is doing, then do something different."

This approach resulted in a campaign that aims its message at the ultimate user—but features the equipment manufacturers' products. After one such ad had appeared, a truck manufacturer noted he wasn't included, came to Cummins engineers to learn how to install their diesels, and made sure his trucks were in Cummins' next ad.

This technique of going over the manufacturer's head in advertising is one that more and more component producers are adopting. It has paid off handsomely for Cummins.

- **Personal Touch**—But its promotion goes deeper than that. There are only a few more than 100 original equipment manufacturers to whom Cummins can sell its engine. With that kind of market, Cummins can do a lot of personal selling. Right now, it is developing a program to encourage

top executives of equipment companies to suggest improvements in engines and service.

Cummins has also taken upon itself some of the problems of installation of its engines by equipment makers. A new pilot center has been established to work with equipment of all manufacturers. Out of this will come the best methods of installing Cummins engines.

"Imagine," says Miller, "a \$100-million company telling I-H how to improve its installation methods!"

- **Guarantee**—Once the Cummins engineers figure out the best methods for each line of equipment, the company hands the manufacturer a set of blueprints of everything he needs to know. If those blueprints are followed, Cummins stands back of the work.

"Today," Miller notes, "it isn't enough to sell a good engine."

He figures the pilot installation system will more than pay for itself by reducing the number of claims made because of unsatisfactory performance. It means also that (1) Cummins people are able to suggest improvements in the design of the equipment itself, and (2) they can help the manufacturer cut installation costs.

- **Ultimate User**—Still, Cummins realizes that the people who can make or break it are the users of the assembled equipment.

So for the past five or six years, Cummins has been bringing these users to its front office, where they have panel discussions with Cummins executives. These executives are instructed to answer any and all questions thrown at them—if there are no answers, finding them becomes a project for Cummins Engine.

Cummins is using a DC-3 to fly people to its plant from the Road Show to Columbus, Ind., where all its manufacturing is done. The company wants to show off its own facilities where the average machine is less than five years old. The modern quality of this machinery helps to explain why Cummins hasn't found it necessary to raise engine prices since 1953—a fact that now makes Cummins prices competitive with other makes.

- **Outlook**—Domestic business alone, generated by the roadbuilding program, assures Cummins of big markets ahead—first in construction, then in trucks to use the highways.

If that isn't enough, there is the foreign market. Cummins is building an engine plant in Scotland—as the first American diesel maker in the United Kingdom—which will boost those sales. Miller already has put Cummins deep into overseas business. Today about 18.5% of all sales are exports. Miller's goal is at least 30% five years from now. **END**





Brown and Root radio-dispatched truck with International TD-14 crawler gets "go-ahead" from dispatcher—to highball to a rush construction job!

## Radio-dispatched Bulldozers give "a la cartage" contract service!

**Internationally-famous contractor**, Brown and Root, Inc., Houston, Texas, takes the tough construction jobs wherever they are—from Guam to Guatemala, from Tunisia to Trinidad.

In East Texas, for example, Brown and Root provides a fast *rush-job* contracting service for oil well drillers, pipeliners, county and city boards, industrial firms, and others.

Heart of this service are easy-to-truck International TD-14 crawlers highballed to work on radio-dispatched trucks. Fast-starting, easy-to-operate TD-14's give Brown and Root "middleweight" mobility and heavy work power-punch.

The more than 225 International TD-14's Brown

and Root and associated companies have purchased testify to the *job-getting efficiency* and *cost-cutting capacity* of this model!

Whether you're a contractor, builder, or producer of basic materials like rock, minerals, timber or oil... or "stake" those who are...look to International for job-matching, work-proven *power-packages*. International builds big-capacity, "*work-anywhere*" crawler tractors for heavy digging, loading, pulling, and pushing jobs...high-speed earthmovers...pipeline tractors...and a heavy-duty line of cost-cutting engines.

Your International Construction Equipment Distributor is an equipment application specialist. See him for the profit-building *power-packages* you need!



Spreading fill in Houston—this fast-doing TD-14 of the huge Brown and Root fleet is leveling land on 360-acre naturalistic park, on south shore of Lake Houston.



**INTERNATIONAL  
CONSTRUCTION  
EQUIPMENT**

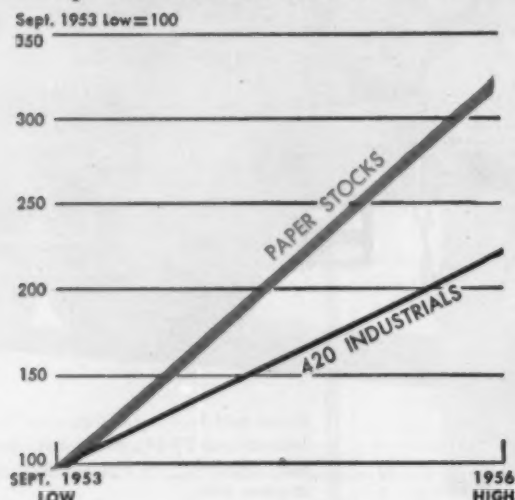
International Harvester Company  
180 N. Michigan Ave., Chicago 1, Illinois

A COMPLETE POWER PACKAGE INCLUDING: Crawler, Wheel, and Side-Boom Tractors... Self-Propelled Scrapers and Bottom-Dumps... Crawler and Rubber-Tired Loaders... Off-Highway Trucks... Diesel and Carbureted Engines... Motor Trucks.

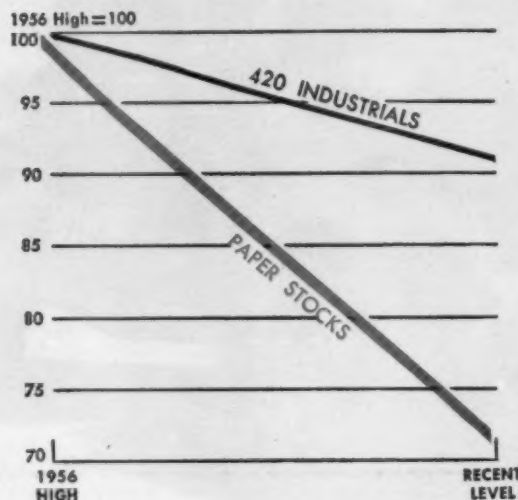


## FINANCE

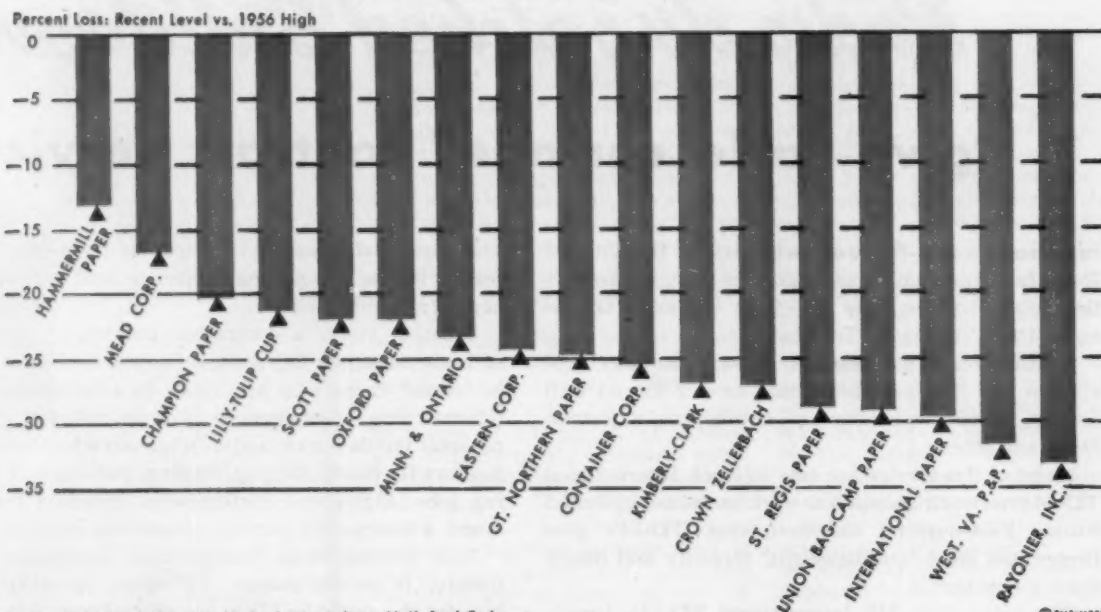
Once one of the  
bull market's  
spectacular leaders ...



... The paper group has  
lately become one of  
the also-rans ...



... With individual losses running as great as these



Data: Standard & Poor's Corp. Weekly Stock Price Indexes; N. Y. Stock Exchange.

© BUSINESS WEEK

# What's Become of Paper Shares?

Flowers that bloom in the spring, always fade by fall. And that goes for stock markets as well as gardens. Fed by record sales and earnings, stocks of the nation's paper companies blossomed last spring, flowered to all-time highs by midsummer. But by the time the

first chill winds of winter fluttered against the Big Board's doors, paper stocks had drooped to the year's lows.

Since then, the droop has become more pronounced. Paper shares have lost about 25% of the gain made during their long haul upward between

1953 and 1956, while industrials as a whole lost only about 12%. The charts above tell the story. Leading paper shares outsped the general bull market climb from September, 1953, lows to August, 1956, highs (BW-Aug. 18 '56, p. 56). Average for the group,



## "YELLOW PAGES TRADE MARK SERVICE IS THE VITAL LINK THAT MAKES OUR NATIONAL ADS PAY OFF"

—says Keepsake ad manager

"The weakest link in the selling chain, and the place where most advertising dollars are wasted is the failure to put the consumer in direct touch with the retailer."

That's the common sense opinion of A.W. Doolittle, advertising manager of the A. H. Pond Company, Syracuse, N. Y., producers of Keepsake Diamond Rings.

"Our advertising can build the desire to buy, but the

sale is going to stop right there if we fail to direct potential customers to the right store. That's why we identify Keepsake dealers through trade-mark headings and trade-name listings in the Yellow Pages of telephone directories. Most important, every Keepsake national ad carries the Yellow Pages emblem. So all readers need do is look in the Yellow Pages to locate their nearest Keepsake dealer."

OVER 1,900 Keepsake Diamond Ring dealers appear under the Keepsake listings in over 1500 markets.

TRADE MARK SERVICE helped put a treasured Keepsake engagement ring on this happy girl's finger.

THIS YELLOW PAGES EMBLEM in Keepsake's advertising directs readers to authorized Keepsake dealers.

**Jewelers—(Cont'd)**

**KEEPSAKE DIAMOND RINGS**

Keepsake registered  
Keepsake Diamond  
Rings are the world's  
finest quality —  
**GUARANTEED PERFECT** by Good  
Housekeeping, Keepsake and your jeweler.  
In many beautiful styles at nationally  
advertised prices.

**"WHERE TO BUY THEM"**

Goldman Jew Jewelers Inc.  
7117 W Greenfield av—Glenview 3-2211

Joe Jewelers Inc.  
830 W Mitchell—Mitchell 3-0303

Joe Jewelers Inc.  
256 W Wia av—Broadway 6-2777

Goldman Jew Jewelers Inc.  
2209 N3-Locust 2-7777

**JEWEL SHOP** 1204 W State—West 3-3325

**STELLER'S JEWELERS INC**  
2740 S Yankton av—Locust 2-9107

Capital of  
UMWA



**Find Your  
Keepsake  
Dealer In The  
Yellow Pages**





**fewer distractions...**

**greater efficiency**

**In individual office units created with**

**Hauserman DIVIDER-WALL**

In a matter of minutes, with HAUSERMAN Divider-Wall, you can define traffic lanes, segregate noisy business machines or create semi-private offices for departments that require them. With both low and glazed modular units to work with, the right combination of Divider-Wall can easily be worked out to suit your requirements.

The flush, attractive appearance of Divider-Wall conceals HAUSERMAN engineering features that assure fast, easy erection and rearrangement. And the lifetime finish of Divider-Wall promises low maintenance costs. Offered in green, gray and tan, with coral for gates only, HAUSERMAN baked enamel never needs repainting.

Arrange to see a Divider-Wall installation by calling your nearest HAUSERMAN representative. Consult the Yellow Pages for his number.

#### **MOVABLE HAUSERMAN INTERIORS**

National Lifetime Service...an Exclusive Hauserman Dividend

THE E. F. HAUSERMAN COMPANY  
7361 Grant Avenue • Cleveland 5, Ohio  
Hauserman of Canada, Ltd., Toronto, Ontario

Please send your free full-color Divider-Wall booklet to:

Name \_\_\_\_\_  
Company \_\_\_\_\_ Title \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

*Free Booklet*



using the Standard & Poor index, rose 598% during the period, against a 205% rise for 420 industrial stocks.

• **Pushing Up**—For the early 1956 strength in paper stocks, there were plenty of reasons:

• Sales were continuing their earlier climb, and there was no sign that earnings were deteriorating. Indeed, most companies last year actually improved upon 1955 earnings.

• Earlier heavy institutional buying had reduced the floating supply of paper shares. Thus, avid bidding subsequently had a tendency to push up prices sharply.

The shares' sharply higher prices, however, had two important side effects: They had created substantial capital gains for early buyers, thus tempting some profit taking. Also the advances had drastically cut the yields available on most paper stocks. So thanks to the tightening of money rates then under way high grade corporate bonds finally began to offer investors higher yields than obtainable on them.

• **Reappraisal**—Moreover investors soon had more basic reason for reassessment. They began to see signs that the paper industry might have been expanding too fast. Helping to spread this uneasiness was a chorus of voices from within the trade itself.

It was noted, for instance, that expansion in production capacity, encouraged by recent rapid growth, could conceivably outstrip near-term demand. High costs require pulp, paper, and paperboard plants to produce close to capacity to make a profit.

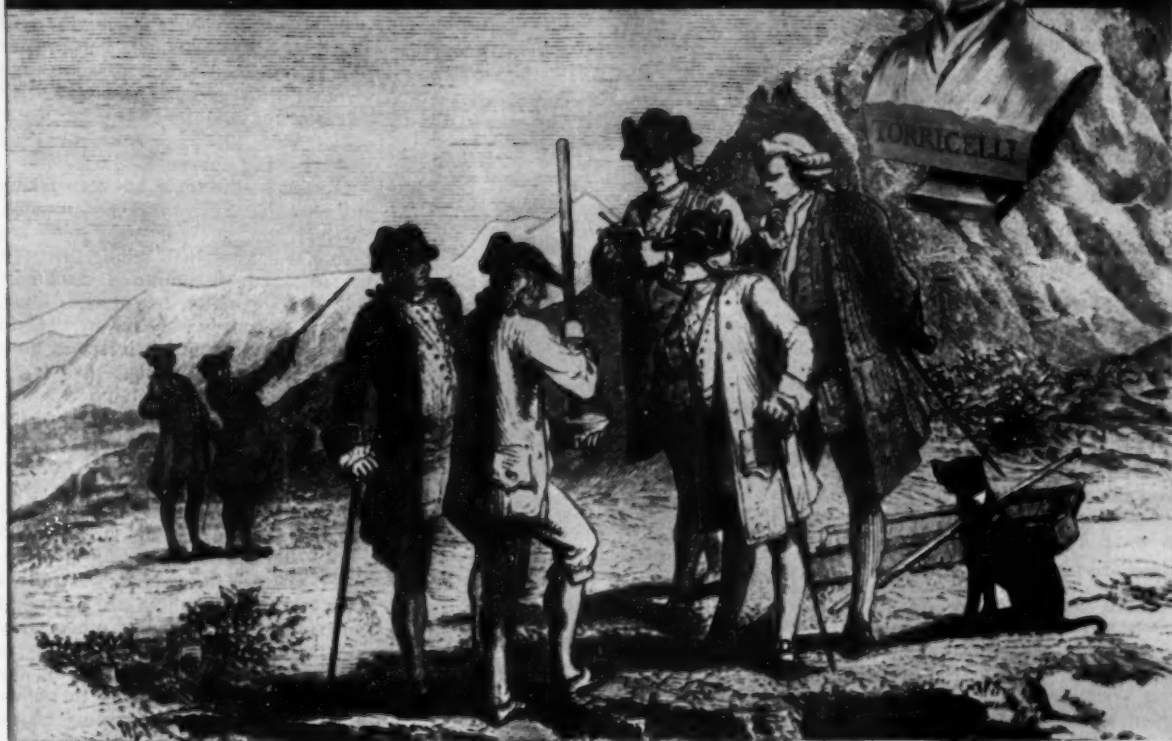
By 1958, according to present plans, the industry will have added about 5.2-million tons of capacity to its 1955 year-end level, a hike of 17%. The expected gain in production, however, falls short of that figure. Last year's production of paper and paperboard stood at approximately 31.5-million tons, only 5% higher than in 1955. And best estimates put 1957 production at roughly only 32.5-million to 33-million, a rise of 4.8%, at best.

• **Specifically**—A look at the figures for production of paperboard—a leading packaging material—brings the picture into even sharper focus. Last week output was 4.9% below the same week in 1956. New orders were down 8.3%. And unfilled orders were off a whopping 25.6%, a portent, some industry observers say, of things to come.

• **Portents**—But, meantime, investors were watching that gap between output and demand widen. Total output of paper and paperboard came to 97.2% of the year-end capacity in 1955, about 95% in 1956. Some of the most bullish prognosticators figure the 1957 figure at a maximum of 93.3%. So, although there's been no retrogression yet in paper company earnings, some possibly



# CONTROL



*Perier measuring the height of mercury in a Torricelli Tube on top of Puy de Dome.*

*The Bettmann Archive*

IN 1643 Evangelista Torricelli invented the barometer. He proved that the weight of a mercury column is balanced by the pressure of air outside. Five years later the French scientists shown above repeated the experiment on a mountain top, found that air pressure was less than in the valley.

One of today's most dramatic uses of these theories is the automatic parachute opening device made by Taylor. It enables a jet pilot to be ejected safely at a high altitude, even if he 'blacks out' or is otherwise incapacitated.

This super sensitive barometric pressure measuring instrument is automatically cut-in at the moment the pilot leaves the plane. At a pre-determined altitude it actuates a timing device which pulls the rip-

cord, opens the parachute. Airman floats to safety. This principle of Torricelli's is employed by Taylor not only in weather forecasting instruments, but also for precisely controlling many industrial processes. Fields in which the name Taylor means quality control run all the way from chemical production to milk pasteurization, from rubber to steel, from textile finishing to petroleum processing. And the variables we measure and control include temperature, pressure, humidity, flow, level, speed, load and density. It will cost you nothing to call in a Taylor Field Engineer. His advice may help your own men cut costs, improve your product. Why not give him the opportunity? Taylor Instrument Companies, Rochester, N. Y. and Toronto, Canada.

## *Taylor Instruments*

VISION • INGENUITY • DEPENDABILITY

## THE "GAMBLE" THAT KEEPS AMERICA GOING

The search for oil is a challenging business — every time an oil company drills into the earth in new territory the odds are 8 to 1 that it will drill a costly dry hole.

But when oil is struck, everybody benefits. More oil means more power for America's industries, more gasoline for America's cars, more fuel for America's homes, more petroleum products to add to the comfort and enjoyment of life.

Since 1930, oil producers have "gambled" \$13 billion exploring for the oil that keeps America going.

*Because of the breadth of its operations, the petroleum industry makes use of almost every known form of insurance. Johnson & Higgins is proud to have been of assistance for many years in providing insurance protection for the petroleum industry.*

### JOHNSON & HIGGINS

INSURANCE BROKERS—AVERAGE ADJUSTERS  
EMPLOYEE BENEFIT PLAN CONSULTANTS

63 WALL STREET • NEW YORK 5

Chicago • San Francisco • Los Angeles • Detroit • Cleveland  
Philadelphia • Pittsburgh • Buffalo • Seattle • Wilmington  
Minneapolis • Atlanta • Vancouver • Winnipeg • Montreal  
Toronto • Havana • London • Rio de Janeiro • São Paulo • Caracas



ominous signs have been appearing.

The lower the output-capacity ratio drops, the sharper earnings could decline. Like every other trade, the paper business has been feeling the effects of higher costs, even though at first glance dollar earnings appear to belie this, because of increased volume. But increasing freight and labor charges, nonetheless, have been forcing the unit cost of production higher. You can see how this squeezes profits by comparing earnings with sales. Whereas in 1947 earnings for the leading paper companies were 10.3% of sales, by 1954 this ratio had slipped to 5.6%.

Obviously, the trade has been taking steps to combat this trend. For instance, although the postwar wage rate has risen 23% faster than selling prices, it has managed via improved machinery and plant operation to cut man hours per ton of paper from 16.9 in 1947 to 12.3 in 1956. Despite such factors, however, it has been apparent that as capacity has been outstripping demand, the climb of earnings has been getting more labored.

• **Warnings**—The disparity between output and capacity, moreover, was noted by Richard C. Doane, president of International Paper, at its 1956 annual stockholders' meeting. Said he:

"So many of the industry's expansion plans mature in the next year or so that our company and many others may find themselves facing markets that are unable to promptly absorb all of the new productive capacity. In other words, the long range planning taking place in our industry can well result in short range problems." And Doane has since been joined in such warnings by other industry leaders.

• **Counsel**—The alternative advised by Doane and his colleagues is to go easy on future expansion. They remembered how severely the industry was hit by excess capacity during the period between the two world wars. Between 1918 and 1939, average annual rate of operations of paper and paperboard mills was only 75.5% of capacity. Throughout that period, destructive price competition resulted in inadequate earnings for most producers.

Such warnings, incidentally, haven't gone unheeded within the trade. A few companies, such as Hudson Pulp & Paper Corp., have canceled some expansion plans that hadn't gone past the talking stage. Others have temporarily put future expansion plans on ice.

This slowdown in capital spending, however, won't show up for several years. Explains Doane: "... In an industry like ours ... commitments for new capacity must be made at least two if not three years in advance. ..." Much of the recent expansion, for example, was actually planned as far back



Again — it's one of New York's finest hotels — with new lobby, new Cafe Lounge, 1000 new "Rooms of Tomorrow", air-conditioning, TV. A new era opens at the famed Sheraton-McAlpin.

**SHERATON** the proudest name in **HOTELS**



For reservations at  
any Sheraton Hotel  
call the Sheraton  
nearest you.

#### EAST

NEW YORK  
BOSTON  
WASHINGTON  
PITTSBURGH  
BALTIMORE  
PHILADELPHIA  
Opens March 4  
PROVIDENCE  
SPRINGFIELD, Mass.  
ALBANY  
ROCHESTER  
BUFFALO  
SYRACUSE

#### MIDWEST

CHICAGO  
DETROIT  
CINCINNATI  
ST. LOUIS  
OMAHA  
LOUISVILLE  
DALLAS  
Sheraton Hotel  
opens 1959  
AKRON  
INDIANAPOLIS  
FRENCH LICK, Ind.  
and other Midwest cities

#### PACIFIC

SAN FRANCISCO  
LOS ANGELES  
PASADENA

#### CANADA

MONTREAL  
TORONTO  
NIAGARA FALLS, Ont.  
HAMILTON, Ont.



**As time goes by, Rust-Oleum long wear assures lower cost over-the-years protection!**



Rust-Oleum is distinctive as your own fingerprint. Accept no substitute.

Rust-Oleum's *unusual* resistance to extremes in rust-producing conditions—from sun and salt water to humidity, moisture, fumes, and weathering—assures you of lasting beauty. Long wear made possible, because Rust-Oleum's *specially-processed fish oil vehicle* works down through the rust into the tiny, microscopic pores in bare metal to STOP RUST. Important savings are realized

by applying Rust-Oleum 769 Damp-Proof Red Primer *over rusted metal* after scraping and wire-brushing to remove rust scale and loose rust—as costly surface preparations are usually eliminated. See how Rust-Oleum can save you money... in your plant, or your home. Prompt delivery from Industrial Distributor stocks. Write for illustrated literature with color charts.

RUST-OLEUM CORPORATION • 2421 Oakton Street • Evanston, Illinois

# RUST-OLEUM®

## STOPS RUST!®



### MANY ATTRACTIVE COLORS

Rust-Oleum finish coatings in Aluminum, White, Red, Gray, Green, Blue, Black, and Yellow provide double protection for tanks, machinery, girders, equipment, metal sash, wire fences, etc. Write for illustrated literature with color charts.

Radioactive tracing studies prove Rust-Oleum penetration through rust to bare metal.



Rust-Oleum and Stops Rust are brand names and registered trademarks of the Rust-Oleum Corporation.



## HOW DO YOU HANDLE IT?



## PUMP IT WITH A VIKING

Pumping semi-solids such as cold creams, salves, greases, etc. is routine work for Vikings. The famous "Gear-within-a-Gear" principle has been adapted to semi-solid pumping with outstanding success for a large variety of users. Vikings pump many other liquids, too—heavy, medium-weight or light. So, if you have a pumping problem, investigate Vikings.

For information on Vikings in capacities from 2 1/3 to 1050 GPM write for bulletin series 575



**VIKING PUMP CO.**

Cedar Falls, Iowa, U.S.A.

In Canada, it's "ROTO-KING" pumps  
The Original "Gear-Within-A-Gear"  
Rotary Pump

as 1953, 1954, and 1955, when demand was soaring with no end in sight.

• **Crystal Ball**—Long range, the outlook for the industry appears bright. It should go along with the growth of the rest of the economy. Most economists are predicting the boom to continue for a long time to come (BW—Jan. 26 '57, p. 106). Per capita use of paper and paperboard by 1960 is expected to hit about 450 to 460 lbs., compared to about 435 lbs. last year; total production, about 36-million tons. Short-term overcapacity should be absorbed by then, and the industry's

operating ratio should be hovering up near the 95% figure.

In the interim, however, the going could prove a little bumpy. As a result, Wall Streeters feel the paper stocks at best will "mill around" at present levels for months to come. They don't preclude the possibility of some further dips within the group.

True, as a result of the declines already, yields on such issues have shown some improvement. However, such returns still appear low, compared with the 4.5% now obtainable from new high-grade corporate bond offerings.

## Bankers Ask Fed for Some New Rules

**ABA wants lower reserve requirements for member banks. But the Fed is cool to the association's over-all plan.**

Terming present Federal Reserve regulations "outmoded, illogical and inequitable," the American Bankers Assn. made public last week a five-point program of reform and expansion designed to help the nation's banking system accommodate the long-term credit needs of the economy.

• **Key Proposals**—The main planks in the ABA's program call for a reduction in the amount of reserves that member banks must hold against their demand deposits and the establishment of a uniform ratio for all member banks. It urged that reserve requirements be cut to a uniform 10% over the next five years. At present, central reserve city banks in New York and Chicago must hold 20% of demand deposits as reserves, compared to 18% for reserve city banks, and 12% for other banks.

These measures, the ABA claimed, would unlock enough reserves to meet the demand for money and credit generated by the growth needs of the economy. If there is no reduction in reserve requirements, the ABA warned that the Federal Reserve would have to supply \$7-billion in new reserves by purchases of government securities for its portfolio.

• **Further Suggestions**—ABA also recommended these reforms:

• **Reduce reserve requirements on time-savings—deposits to 2% on a permanent basis.** Right now, regulations require commercial banks to hold 5% of time deposits as reserves. The Federal Reserve has authority to vary the ratio from 3% to 6%. This puts commercial banks in an unfavorable competitive situation, says ABA. It feels that a 2% reserve that would not be subject to change is adequate for meeting withdrawals.

• **Include vault cash in legal reserves.** ABA tags the present ban as "one of the more conspicuous inconsistencies" in the Federal Reserve rules.

• **Limit the Federal Reserve authority to varying reserve requirements on demand deposits from 8% to 12%.** The Fed now is allowed to vary reserve ratios from 13% to 26% for central reserve city banks, from 10% to 20% for reserve city banks, and from 7% to 14% for country banks. There is no justification, in the eyes of the ABA, for either the geographical differentials or for the wide amount of discretion in the hands of the Fed. If a uniform 10% rate were provided for all member banks, the ABA feels that giving the Fed authority to move between a range of 8% and 12% would be adequate for its control of credit.

• **All or Nothing**—The ABA emphasizes that its program is an integrated one that should not be adopted piecemeal. The association also declares that the entire program should be adopted with a view to putting it completely into effect within five years. ABA would give full responsibility to the Federal Reserve Board for executing the program, as well as deciding whether an extension of the target date by a year would be desirable.

In presenting its recommendation for a cut in reserve requirements, the ABA makes clear that it is not demanding an easier credit policy unless the Fed thinks this is warranted. It states that gradual reductions in reserve requirements, which would provide the banks with increased funds for loans, could be offset by sales of government securities from the Fed's portfolio. The Fed's portfolio is already too big, says ABA, and unless reserve requirements are lowered, it must get even bigger.

• **Partial Agreement**—The ABA consulted with the Fed before it made public its recommendations, but the chances of getting the full program enacted are considered slim. Fed officials agree that reserve requirements are too high. William McC. Martin, Fed chair-



weigh the  
modern way!  
cut your costs!

## use a HYDROSCALE ON YOUR CRANE HOOK

ALL WEIGHING IS DONE  
ON YOUR CRANE HOOK  
OUTMODES COSTLY CENTRAL  
WEIGHING STATION  
COMPLETE LINE OF 110  
MODELS NOW AVAILABLE

### TYPICAL WEIGHING APPLICATIONS

Just a few of the many appli-  
cations include—loading, un-  
loading, batching, check  
weighing, foundry charging,  
production control, process  
control, checking inventory,  
and, protecting your equip-  
ment from overloading.



SAVE  
FLOOR SPACE!  
SAVE MONEY!  
SAVE TIME!

## HYDROSCALES guaranteed—

to be free of defects in workmanship and  
materials, and accurate to 1/2 of 1% of the  
maximum dial capacity.

Write for descriptive literature explaining model features.

## HYDROWAY SCALES, INC.

31312 Stephenson Hwy. • Royal Oak, Mich.  
"The world's largest producer of crane scales"

# ARIZONA



across  
the street  
from Mexico

Only a line on the map sepa-  
rates Arizona from Mexico.  
It's a very friendly line, with gates  
wide open for people and products  
to pour in and out.

Arizona's dry land port of  
Nogales handles more merchan-  
dise than many famous ocean ports.  
Border business offers vast oppor-  
tunities for warehousing, distribu-  
tion, processing of Mexico's raw  
materials. Skilled labor is at hand,  
and it's easy to do business across  
the line. Ambos Nogales are happy  
cities; people like to work where  
it's fun to live!

Want to know more about amazing  
Arizona? Write for Arizona Industrial  
Facts. Ask for specific information  
regarding your industry.

# ARIZONA

Development Board

PHOENIX ARIZONA

man, has publicly stated that he would  
like to see them lowered when condi-  
tions permit. And the Fed also is on  
record as favoring the inclusion of vault  
cash as legal reserves.

• **Fed's Objections**—But, although the  
Fed has remained officially silent on the  
ABA proposals, it is privately cool to  
some features of the plan. The main  
reason is that the plan, with its com-  
mitment to reduce reserve requirements  
to 10% over a specific period, would  
impair the Fed's flexibility. As one  
official put it: "If we had to cut res-  
erves on a more or less regular basis,  
we would be introducing a push button  
technique into central banking. That  
is impossible."

And this is not the only objection.  
Fed economists also point out that it is  
not always possible to offset reductions  
completely by sales in the open market.  
In fact, they say large-scale sales of  
governments would themselves tend to  
increase the liquidity of the banking  
system and make it less responsive to  
Federal Reserve action.

So, while the Fed does concede that  
some of its current regulations are out-  
moded and that reserve requirements  
must be cut, it wants to be in com-  
plete charge of making any changes.

## FINANCE BRIEFS

The Massachusetts legislature last week  
rushed passage of a bill to block Bos-  
ton's First National Bank from a merger  
which would have expanded its opera-  
tions across county lines. The new  
law rescinded the authority of mutual  
savings banks to open branches within  
15 miles of their home territory, even  
if such branches were in other counties.  
This move prevented the First from  
merging with Granite National Bank  
of Quincy, located in another county,  
since under the National Banking Act,  
national banks can establish branches  
under the same regulations applying  
to state banks.

• Another proposed debenture issue has  
been withdrawn "because market con-  
ditions don't seem to be right." So said  
Donald K. Evans, secretary-treasurer  
of Riegel Textile Corp., which planned  
to offer \$12-million of sinking fund  
debentures.

• Following talk that the Treasury Dept.  
was considering asking Congress to in-  
crease yields on U.S. savings bonds,  
a bill was dropped into the legislative  
hopper last week that would give  
buyers 2.5% interest, tax free. The  
bonds would be issued in denomina-  
tions of \$25 to \$1,000. A bill previously  
introduced would make present yields  
of Series E bonds tax free.



## MARKED IMPROVEMENTS in IDENTIFICATION AND DECORATION

Variety in the shirt business ... Proving again that  
there's no single marking method best for every  
need, a customer of ours uses both labeling and  
direct marking, and each method is doing a good  
job. For shirt boxes, he has changed from paper  
labels to direct imprinting with our 105-10  
machines, helping both looks and economy. For  
washing instructions, style name, etc. on about



five million sports shirts a year,  
however, he has replaced pre-  
printed or woven labels bought  
from an outside source with  
labels printed on our 126C  
automatic machine. Saves him  
about \$2.00 per thousand  
labels, and inventory problems  
and obsolete labels are things of the past. Goes to  
show what the right method can do, and how we  
may be able to help you find it.

A 4000-year-old idea ... is behind all screen  
process printing done today, and a brand new  
Markem machine is no exception. What's different  
about our idea, however, is the fact that screen  
printing's peculiar advantages (heavy coverage  
with fine detail on almost any surface) are now  
"mechanized" for volume production.

The 90S, as we call it, is so new that  
only a few are "in the field", but  
we've heard many enthusiastic com-  
ments. Those of you who make  
such things as cosmetic containers,  
printed circuits, play shoes, instrument  
dials, plastic bowls, etc. may find the  
90S worth looking into.



The familiar "45" ... Our "45" machines will  
probably never enjoy quite the same fame as Mr.  
Colt's, but they are going great guns. Five years  
ago this spring we built the first one, and just  
now serial no. 1100 has been shipped. Nine  
different models presently comprise the 45 series,  
and their field stretches from boxes, bags  
and die-cut labels to resistors, condensers and  
transistors; plumbing fixtures and  
lollipop sticks to ignition parts  
and plastic novelties. Markem  
"45's" can't mark everything  
(we make about 40 other basic  
types of machines), but they  
do illustrate the many jobs a  
well-designed standard machine  
can do.



Markem has devoted 46 years to developing mark-  
ing machines, elements and compounds—and the best  
ways to use them. If experience like this can help you,  
call Markem Machine Co., Keene 33, New Hampshire.

# MARKEM

# Grooming Transistors

**Transistor makers, out to boost 1957 sales, are racing to build more plants, as step toward full mechanization, and half-billion unit-a-year output by 1965.**

**A**SK ALMOST any transistor manufacturer how he thinks his unit production for this year will compare with last, and his answer will range from a conservative "triple" to an optimistic "four or five times as many as last year."

Ask the same men how many transistors they think their whole industry will produce, and their answers will be a bit more cautious, but still risky enough. Their estimates, ranging from 22-million to slightly over 30-million, average out to about double the 12½-million units produced in 1956. There's agreement on one other thing, too—1957 will be a year of intense competition for transistors, as well as growth.

"It's a case of really fast industry expansion," says Alan M. Glover, general manager of Radio Corp. of America's year-old Semiconductor Div., "and every one of the 35 or 40 companies in it is looking for a bigger slice of the market."

RCA itself is no exception. Just two months ago, Glover moved his office to a new 185,000-sq. ft. plant in Somerville, N. J., a few miles from the huge RCA tube manufacturing plant in Harrison. Gradually, his plant is filling up with the equipment you see in the pictures—the specialized gear required for making transistors. Right now RCA is making transistors at both Harrison and Somerville, but will soon transfer all production (of transistors and diodes) to the new plant in a series of steps calculated to keep production humming. The move is about one-quarter complete.

## I. Expanding All Over the Lot

The RCA Somerville plant is only one of a dozen or so new ones that are hooked to the rising sales—and decreasing price—of transistors, and the market the manufacturers see multiplying many times over in the years just ahead.

• **Transistors and Tubes**—The tiny devices, with a single operational part of germanium or silicon metal no bigger than a slice from a grain of rice, perform the critical task of amplifying electrical signals with astounding efficiency. That's essentially the same function tubes in your radio and television sets perform, but tubes need much more power and take up hundreds of times

as much space. Besides that, transistors don't generate much heat while they are operating, and should last longer and be more reliable than many types of electron tubes.

When most of the bugs are ironed out of manufacturing techniques, and transistor types are standardized for highly mechanized production, there's little reason why they can't be produced at less cost—function for function—than vacuum tubes.

Not that transistors as they exist today will be able to take over all the jobs vacuum tubes perform. Vacuum tubes are still the only devices that can amplify or generate extremely high frequency signals, for one thing. And they can handle large amounts of power—transistors can't. Frank W. Mansfield, director of market research for Sylvania Electric Products Corp. told a meeting of security analysts recently: "You are wrong if you expect tube sales to be badly hurt. The electronics industry is growing too fast."

• **Bets on the Future**—No one in the industry doubts either that transistors will take over a lot of territory now occupied by tubes, or that tubes and transistors both will continue to find new applications.

While sales of 12½-million transistors in 1956 are a drop in the bucket compared to the 474-million tubes sold, most of the larger companies predict an annual sales volume of some half-billion transistors by 1965. Some of the most recent bets on that big future market include:

• **Texas Instruments, Inc.** (BW—Dec. 22 '56, p. 56), currently running a neck and neck race with General Electric for top spot in rate of unit production, is building a \$4-million, 280,000-sq. ft. transistor plant in Dallas, Texas.

• **General Electric Co.**'s present expansion moves will triple its production capacity this year. In addition to extensive facilities in Syracuse, GE is converting a large television picture tube plant in Buffalo to transistor making, will start operating it this spring. GE is probably more mechanized than any other manufacturer.

• **Sylvania Electric Products Corp.** built a new plant, last year in Hillsboro, N. H., to manufacture power transistors, is also expanding its facility in Woburn, Mass.

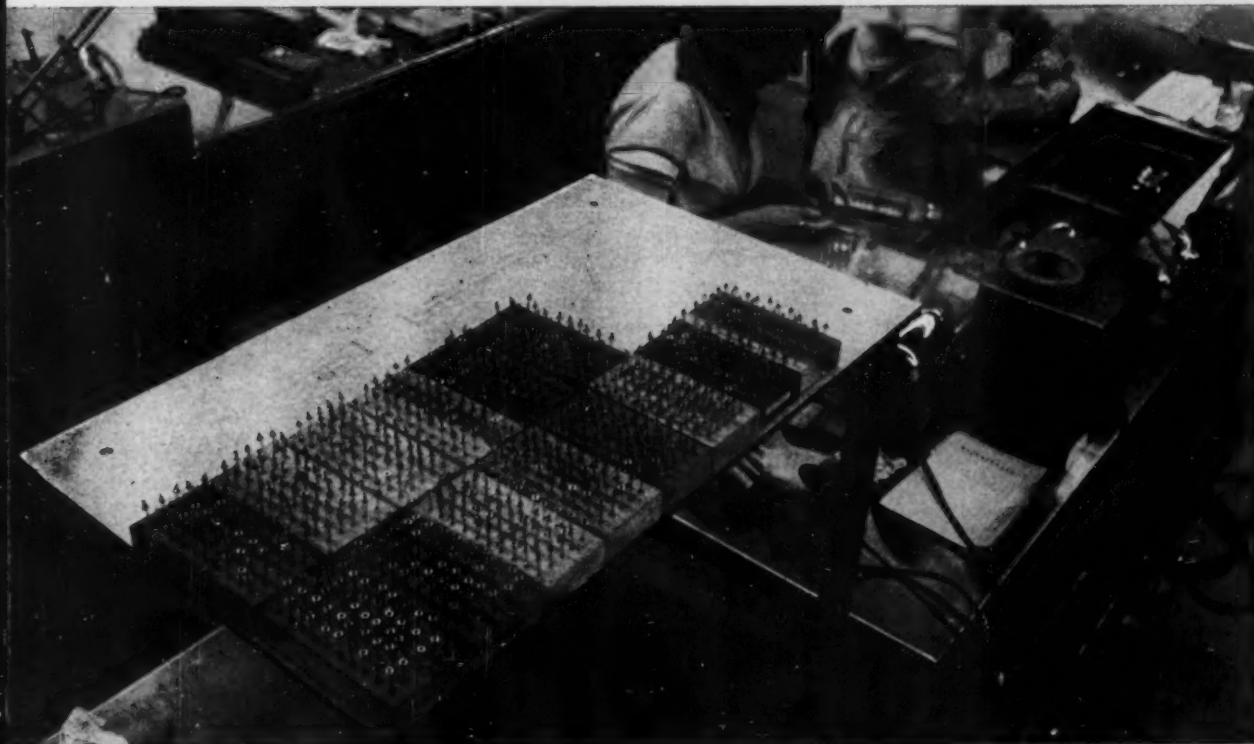
• **Motorola, Inc.** has established a semiconductor division, started up a sizable plant in Phoenix. Currently Motorola makes transistors for its own use only.

• **Hughes Aircraft Co.**'s Hughes Products Div., a big West Coast supplier of military and commercial equip-

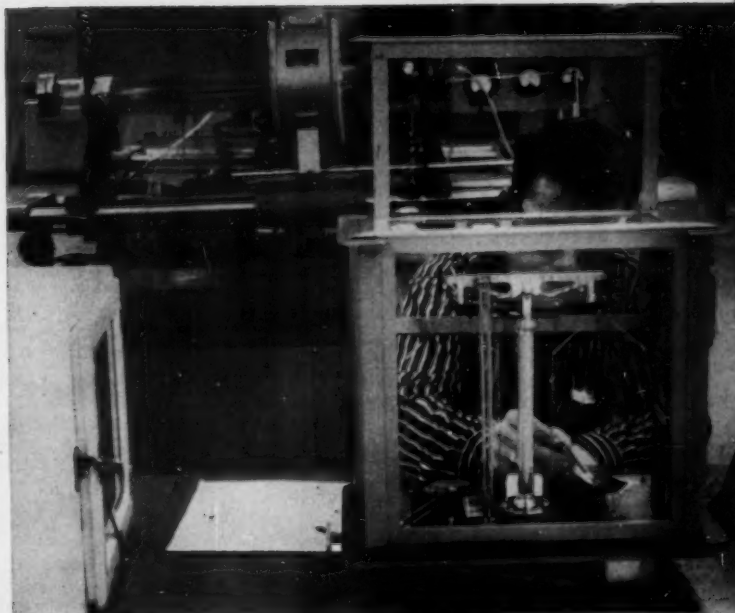


**SOLDERING** hair-thin wires to transistor contacts demands special techniques. Hot hydrogen gas jet is used instead of soldering iron.

# to Crack the Big Volume Markets



**WASHING** the 700 transistor elements in ultra-pure water bath cleans them before final "encapsulation," or capping with a tiny metal can.



**WEIGHING** out milligrams of material to add to germanium. Crystal puller, rear, grows single crystal that yields over 1,000 transistor elements.

**SCRIBING** lines on germanium wafers permits them to be broken into  $\frac{1}{4}$ -in. squares. This provides larger yield than sawing, which wastes material cut away.



ment and electronic components, and one of the largest producers of germanium and silicon diodes, announced last month it was going to manufacture transistors for consumer and industrial applications.

- Others, too, are pushing full speed ahead on research, development, and production engineering projects. Raytheon Mfg. Co., well established as the largest producer of hearing aid transistors, is aiming at a larger share of the radio and military components business. Philco Corp., claiming to be the largest supplier of high frequency transistors to the military, intends to triple its production this year. And coming up fast are a number of smaller companies such as Tung Sol Electric, Inc., and Transistron Electronic Corp.

Among the electrical and electronic industry giants, Westinghouse Electric Corp. is producing transistors for its own and military use, Western Electric Co. is doing the same, CBS-Hytron is expanding production of all types of transistors, with emphasis on power types for use in auto radios. Delco Radio Div. of General Motors Corp., largest producer of auto radios, is producing transistors for its own use.

- **Who's on Top?**—Because production facilities are expanding so fast, and because companies guard their unit production figures jealously, it is impossible to rank even the five leading producers in order of production, sales, or capacity. Even within the industry, such intelligence is vague. Leading marketing and production men, though carefully staying off the record, give contradictory rankings of the companies that tag after the two leaders, GE and Texas Instruments.

Not one of the top ten or so companies in the field will admit to a rank lower than fourth or fifth or a market share of less than 20%.

By the end of 1957, when facilities now under construction are complete, it may be possible to get some idea of the relative size of individual manufacturers. What's most likely is that the final lineup will emerge from marketing, pricing, and distribution strategy—and that would seem to favor the large tube and electronic product manufacturers.

## II. Pricing for New Markets

Last year manufacturers made about 900,000 portable radios using transistors; that accounted for some 5½-million transistor units. At most, 1½-million transistors went into automobile radios, most of which use tubes and transistors in combination.

Industrial and commercial equipment such as control devices, instrumentation, and computers probably accounted for well over 2-million, military uses about the same number. The balance

went for such uses as hearing aids, toys, the hobby market, and other applications.

- **Growth Factors**—The growth of transistors depends in part on price, in part on suitability for certain uses. For military purposes, where space, weight, and power are critical, transistors must be used—often regardless of price. The consumer finds it worthwhile to pay more for transistors in portable radios for the same reason.

But for home appliances such as television and table radios, price is the major factor. Here light weight and lower power consumption—the most obvious factors favoring transistors—are less important to the consumer.

- **1957 Picture**—Much, of course, depends on the price of transistors compared to vacuum tubes. At present prices, scads of new electronic products based on transistors—high fidelity amplifiers, remote switching devices, toys, computer logic elements, and hosts of others—are hitting the market in an increasing flood that will represent a good part of this year's consumption.

Sales of portable radios using transistors are expected to rise about 24-million units, accounting for some 12-million transistors, or nearly half the predicted total unit sales for the industry in 1957. Automobile radios, however, are still an unknown quantity for this year.

- **Tumbling**—Prices of transistors that go into consumer products (electronics men call it the entertainment market), are tumbling down. A year ago, the average price of General Electric's entire line of 31 transistor types (including more expensive high-performance units) was \$2.90. Today it is \$1.90. Prices for the kinds of transistors used in the high frequency circuit of portable radios have fallen from about \$3.00 each at the end of 1955 to about \$1.25.

And the industry sees three powerful reasons why prices will continue to fall.

- **Competition**—Two types of competition are working to bring prices down. Manufacturers of transistors are competing against each other—and there is a narrowing price gap between tubes and transistors.

It's that gap that now keeps transistors out of huge consumer product applications; transistors today are 30¢ to 50¢ more expensive than vacuum tubes that perform approximately competitive functions. Tube manufacture is already highly mechanized; tube plants can't go much further in that direction. Transistors still are made in rather low volume and haven't tasted the full fruit of mechanization. When they do, they should crack the television and table radio fields, and dominate auto radio production.

The carrot of penny-for-penny competition with tubes is close to the nose of every transistor man, and each is convinced he will have it in his hands within two, or at most three, years.

- **Volume Production**—The economics of volume production will also mean lower unit costs for transistors. Industry volume has tripled twice in the last three years. And such volume brings standardization.

The Joint Electron Tube Engineering Council—known as JETEC—has only recently issued its first standards for transistor sizes and lead locations. The council aims at unifying shapes of transistors so they will fit automatic circuit board assembly machines. Several manufacturers are shifting to the new transistor shapes.

- **Knowhow**—Third reason for expecting prices to tumble further is the advance in production knowhow. This has already increased the yield from costly raw materials and has cut the number of rejections of completed units. The high proportion of rejects of completed transistors has been one of the biggest headaches of the industry. If the rejection rate goes down, so too does the price.

As one transistor maker puts it, "It's a case of working with the purest, most contaminable materials known to man, and turning out units in a volume you'd expect from a button works."

At least one major manufacturer predicts average unit prices for transistors will drop to the 55¢ range by 1965. And almost all foresee transistors selling for the same price as tubes by 1960—or even sooner.

## III. Mechanizing the Job

The high degree of precision required in transistors is what makes them so tough to make. When you talk of purity in transistor terms, you mean such purity that even the most sensitive analytical instruments can't detect the impurities. You have to judge by the electrical resistivity of the materials—the more impurities, the less the resistance.

To get germanium or silicon of that purity, transistor makers reduce chemically pure germanium dioxide, a white powder, to metallic germanium. Crucibles are of pure graphite or quartz. The germanium from the chemically pure powder, however, is still much too impure for transistor use. It has to be zone-refined to a purity of only a few parts of impurity per billion. On a larger scale, that would be like separating a pinch of salt from a boxcar load of sugar.

But the germanium must have a small bit of impurity in order to conduct electricity. So after the ingot of germanium is refined, it must be





**DEXTER USES  
CAREFULLY-GUARDED KNOW-HOW  
to solve tough filtering problems\***

From tea bags to vacuum cleaner dust bags — from oil filters to textile "cake covers" — and whether for use with liquids, gasses or air—DEXSTAR Specialty Papers are solving hundreds of tough filtration problems.

DEXSTAR Specialty Papers are custom-made—by carefully guarded manufacturing processes known only to Dexter — with almost any desired combination of specific characteristics such as porosity, dimensional stability, tensile strength, wet or dry strength, thickness, softness, etc.

If you have filtering problems — look to DEXSTAR for a custom-made paper that will make your product more successful, more saleable.



\*and saturating, laminating, insulating, coating, backing and other such problems, too.

**SPECIALTY PAPERS**

**C. H. DEXTER & SONS, Inc.** Windsor Locks, Conn.

from Natural, Synthetic  
or Glass Fibers

Isn't it time, sir—  
to get away  
from it all?



## A SOUTHERN CALIFORNIA BUSINESS TRIP PAYS FOR ITSELF TWICE

This is the trip comptrollers and physicians approve.

Certainly the Los Angeles market warrants your first-hand scrutiny now. Third in the U.S. in retail sales, it welcomes 15,000 new residents a month.

And consider what Southern California could do for you in the midst of the midwinter doldrums! You'd put business pressures and gray winter days behind... enter a world of genial sunshine, blue skies and smiling flowers. You'd cheer the horses, shoot golf among desert palms, relax in Hollywood. And go home a new man—rested, renewed, *alive again!*

Better mail coupon today, start planning a Southern California business trip. The trip that pays for itself twice.

**ALL-YEAR CLUB OF SOUTHERN CALIFORNIA.** This advertisement sponsored by the Los Angeles County Board of Supervisors for the citizens of Glendale, Hollywood, Long Beach, Los Angeles, Pasadena, Pomona, Santa Monica, Torrance and 182 other communities.

**COLOR MAP.** Official Sightseeing Map of Los Angeles County, all Southern California, 22½" x 25". Traces routes for tours, locates 645 sights. *Free*—mail coupon.



All-Year Club of So. California, Dept. H-2  
628 W. 6th St., Los Angeles 17, Calif.

Please send free Color Sightseeing Map.

Name

Street

City

Zone  State

PLEASE PRINT NAME AND ADDRESS

"doped" to bring its conductivity within specified close limits. Then it must be remelted and grown as a single crystal of metal. Crystal pullers are one of the most critical pieces of apparatus, cost up to \$25,000 each. Many transistor makers design their own.

• **Shaping**—Next step after growing the crystal is to dice it into the tiny rodlike or flat, square shapes that are the operating heart of the transistor. It takes a diamond saw to do the job, and the thinner the saw, the greater the yield of useful elements from the crystal. Currently, GE gets up to 3,000 elements from a "rate grown" crystal.

In RCA's Somerville plant, which now produces alloy-junction types of transistors, the thin wafers cut from the germanium ingot are lapped to exact thickness, then scribed and cracked into tiny squares. The squares are further sized by etching. Tiny bits of an indium alloy are fused to each side of the squares, and an electrical connecting tab is attached.

Hairthin wires are then soldered to the indium dots. Since you can't use a soldering iron on anything so small, a thin stream of hot hydrogen gas is used to heat the tiny wires to soldering temperature.

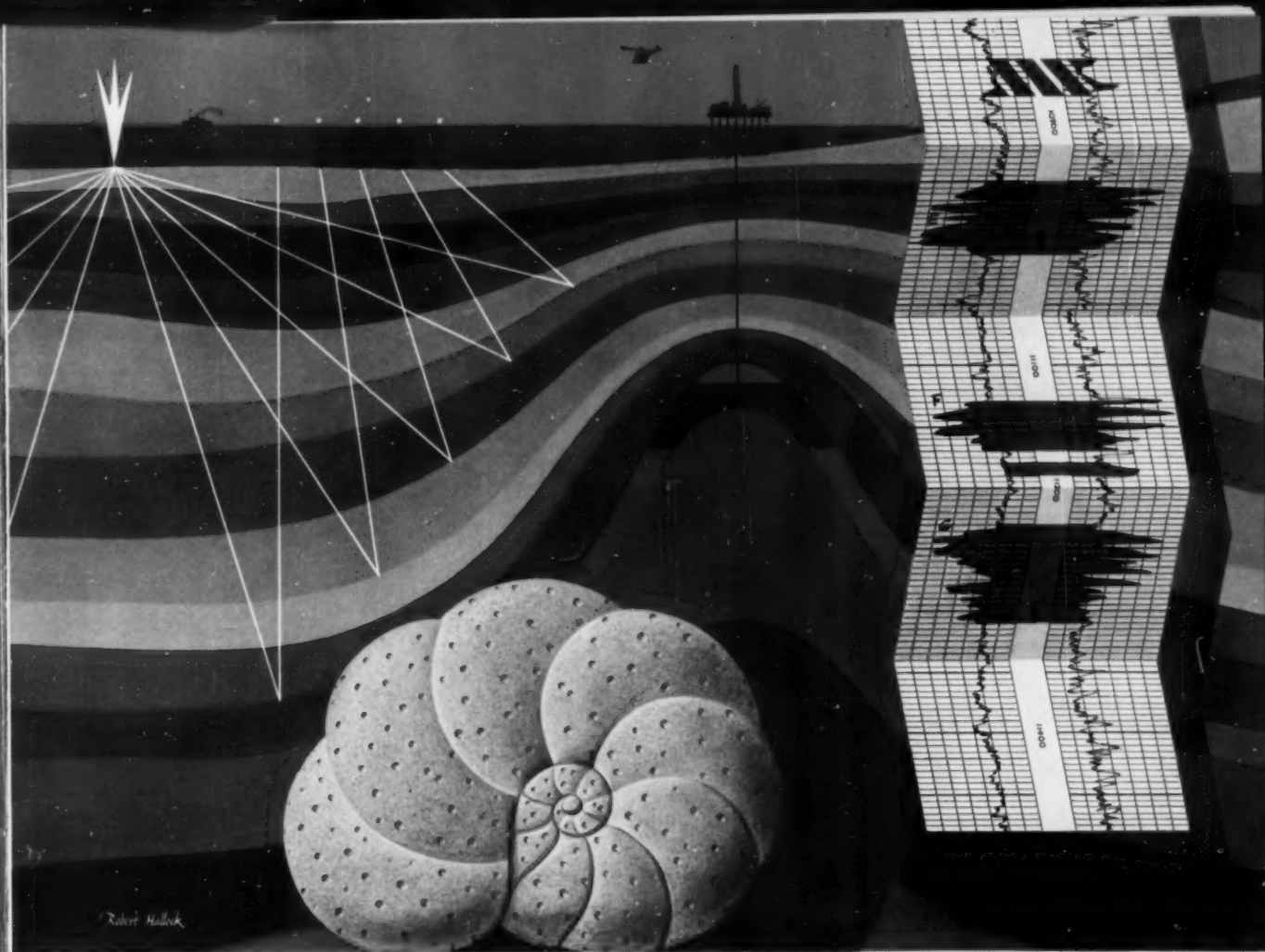
• **Final Stage**—The last step is encapsulating the transistor in a tiny metal can that has an airtight seal at the base. The capping operation is done in a special "dry box" where humidity is kept below 5%. After the transistor is capped, it's tested to determine its electrical characteristics.

• **Control Problems**—There are still unknowns in many steps of transistor manufacture, but the big hurdles of learning to handle materials of extreme purity and learning to live with sensitive tolerance limits have, in general, been taken in stride.

The next big development is mechanization, which will come in evolutionary steps as transistors are standardized and volume goes up. But there are still many problems of quality control that production men have to solve to cut prices of high quality transistors, particularly for the very high frequency requirements of television.

Most engineers in the industry say it is just a matter of time until they can develop precise enough production control. Then costs will fall and high frequency transistors will go into home television and scads of new products, say transistor optimists.

At RCA, Glover comments, "Present floor space in transistor plants is sufficient to produce the half-billion transistors predicted for 1965. The quantity of production now depends more on the rate of mechanization and the development of production controls than on the square footage of plants in the industry." **END**



## Needed in 24 hours: 7,000,000 barrels of oil

*Finding new crude takes brains, brawn, science, and luck . . . plus bank credit*

The greatest game of hide-and-seek in history is being played from the Canadian border into the Gulf of Mexico. Its object: Find 7 million barrels of oil a day, enough to fill 300 miles of tank cars. For that's what it takes to keep the nation's wheels turning.

Oilmen are smashing records to meet this challenge. During 1956, they brought up oil from 4¼ miles . . . sank a well 42 miles offshore, another in 112 feet of water . . . and drilled 5,000 new wells a month. All are records!

But it will take more records to satisfy America's demands for 100 billion barrels over the next 25 years. (Three times current known U.S. reserves!) To step up the search, the industry relies on the seismograph and other geophysical "tools" . . . on faster, deeper

drilling techniques . . . on new methods of recovering "unrecoverable" oil . . . and on the still vital element of luck.

In the face of the tremendous needs for petroleum, oilmen require more from banks than loans. They need *bankers* who know the oil industry. That's why oil executives come to First National City's Petroleum Department.

Here they find adequate resources and a combination of banking and petroleum talent that aids in planning and providing for their financial requirements. First National City's banker-

engineer teams — working with correspondent banks in oil centers — can offer tailor-made financial services.

Oil-production loans, for example, facilitate development and the sale and purchase of oil-producing property. Construction loans for refineries, petrochemical plants, pipelines, and marketing facilities aid in plant expansion. Banking services are also available to the industry through our 70 Overseas Branches, Offices, and Affiliates.

Learn how a First National City banker can serve your industry.

**The FIRST  
NATIONAL CITY BANK**  
*of New York*

**First in World Wide Banking**

Member Federal Deposit Insurance Corporation



CARRY FIRST NATIONAL CITY TRAVELERS CHECKS . . . SAFE . . . SPENDABLE ANYWHERE

# LOOK! NEW FO

The boldly modern styling you see in new Ford Trucks for '57 only *hints* at how deep-down modern they are!

Ford's new Tilt Cabs bring you the most advanced truck design in America today! It's America's lowest priced\* Tilt Cab line. New pickups with Styleside bodies (standard at no extra cost) offer extra loadspace, new higher power, completely new cabs, a new kind of pickup ride. And Ford's "Big Jobs," ranging from 21,000 lbs. GVW to 65,000 lbs. GCW, have new engines, cabs and chassis—new strength and durability throughout. See your Ford Dealer for more information on the sweeping changes made throughout the new Ford line.

\*Based on a comparison of factory suggested list prices.

**New T-800 Tandem**, 45,000 lbs. GVW. High torque 212-h.p. V-8 engine, 4-barrel carburetor and power steering standard at no extra cost.

## LOOK again!

### They're modern through and through

**NEW cabs**—completely new—stronger, roomier, smarter! New wider full-wrap windshield. New inboard cab step, new Hi-Dri ventilation, new easy-to-read instrument panels!

**NEW hydraulic clutches**, standard in all models from Pickups to Tandems. Easier to operate—work like hydraulic brakes. Clutch and brake pedals are modern suspended type for extra driving ease!

**NEW power advances!** New higher horsepower, new freer breathing, new higher compression, new Super Filter air cleaners. New advancements from camshafts to carburetors! Modern Short Stroke design in every engine—V-8 or Six.

**NEW Heavy Duty 302 and 332 V-8 engines** now have 4-barrel carburetors standard. New hood air scoop with thermostatic control available.

**NEW riding comfort!** A completely new suspension, big roomy cabs, and improved visibility combine to greatly improve riding and handling ease.

**NEW chassis and body strength!** New frames, up to 13% stronger. New sturdier axles! New higher capacity springs! New, more durable cabs.





# FORD TRUCKS *for '57*

**Totally new Tilt Cabs!**  
America's lowest priced  
Tilt Cab line. Six new  
series, up to 60,000 lbs.  
GCW.



**New pickup** with Styleside body, standard at no extra cost, gives you stunning style and the biggest capacity of any half-tonner. Available in both 6½-ft. and 8-ft. body lengths.

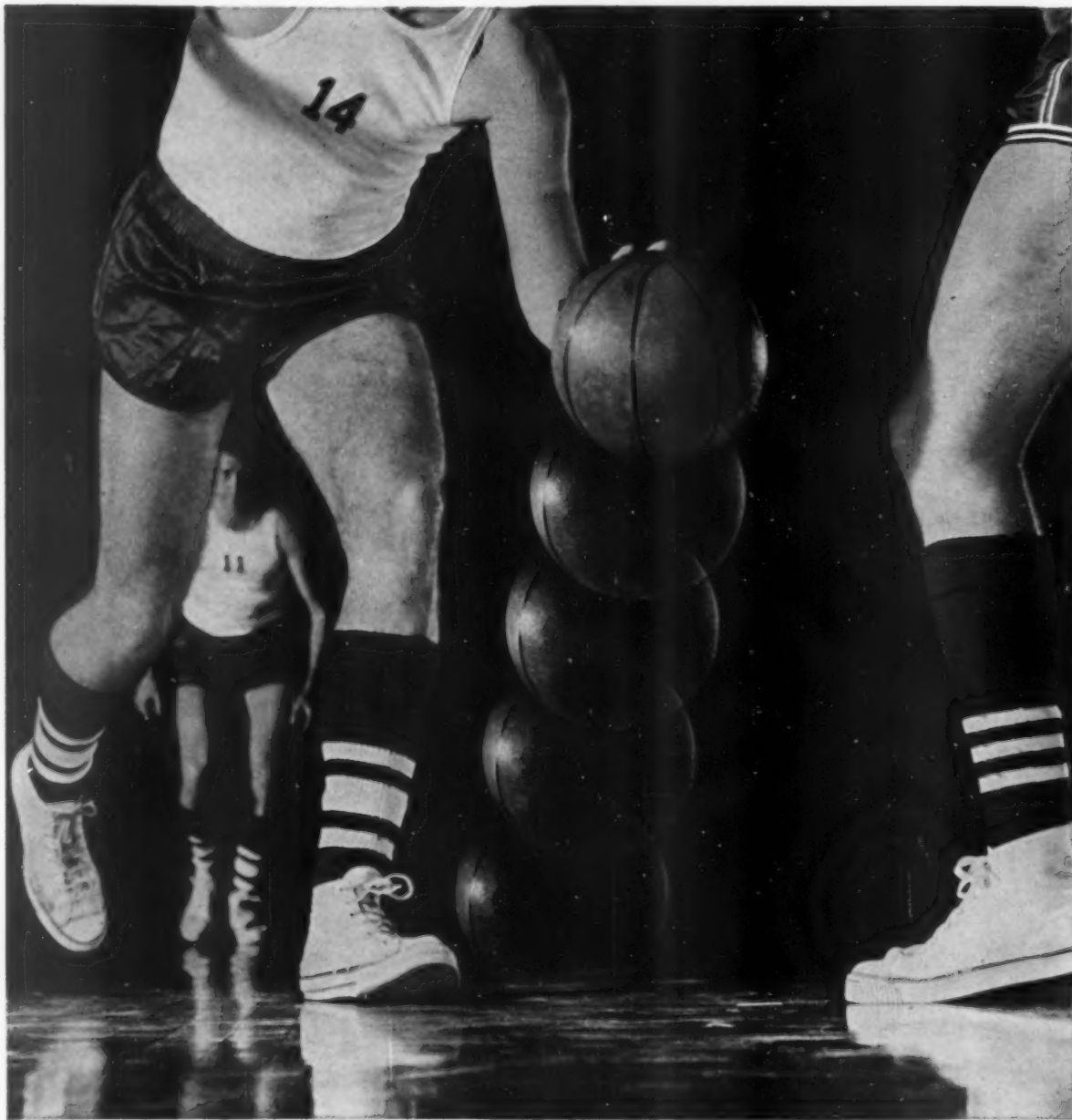
***For '57 and the years ahead-***

## **FORD TRUCKS COST LESS**

***...LESS TO OWN...LESS TO RUN...LAST LONGER, TOO!***

## ENJAY BUTYL

*Fabulous new rubber that holds air for good*



Now they blow up basketballs at the factory and ship them inflated, to arrive ready for use. It's all possible because of a new kind of bladder, made of Enjay Butyl. This remarkable new rubber holds air longer than other kinds—holds up better under rough treatment, too. First used in inner tubes—now in hundreds of other products—Enjay Butyl out-performs natural and other types of rubber.



ENJAY COMPANY, INC., 15 West 51st St., New York 19, N. Y.  
Other Offices: Akron • Boston • Chicago • Los Angeles • New Orleans • Tulsa

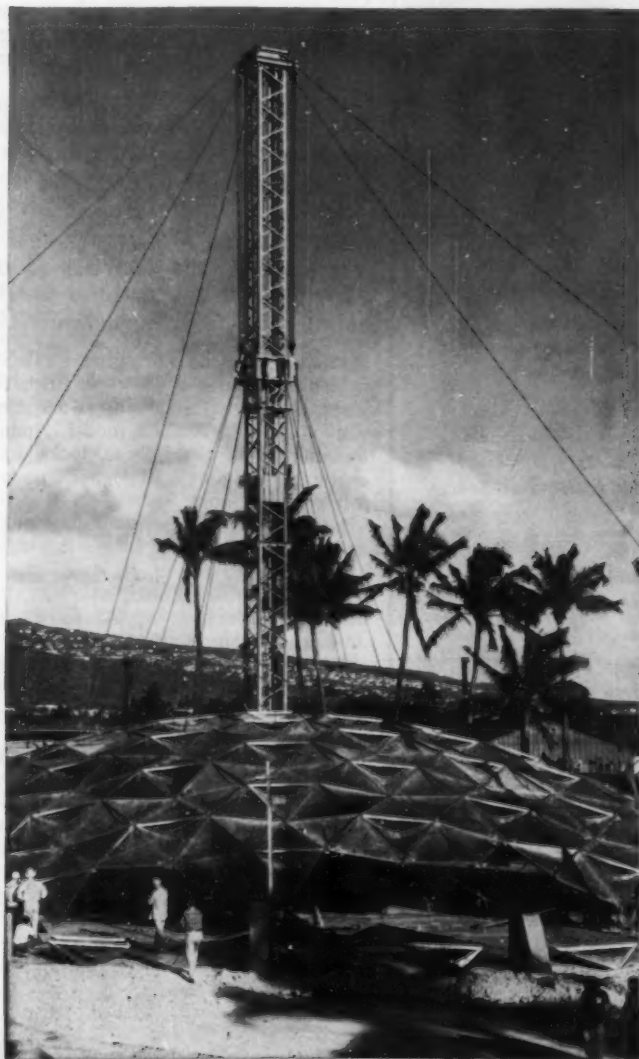


# Two Days to Build a Giant Dome



First ring of panels is put together close around the construction mast.

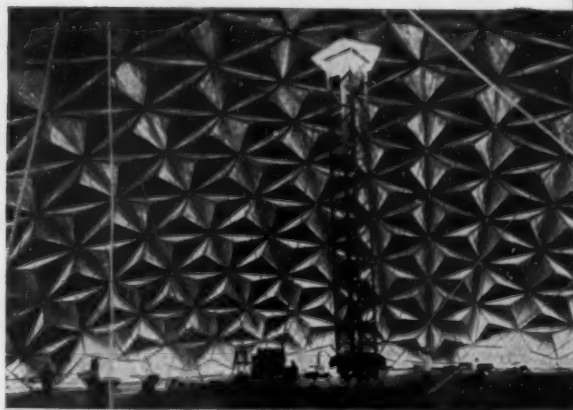
As each ring is finished, it's hoisted a bit to make room for the next.



**Kaiser's Waikiki convention hall—aluminum panels bolted together—went up so fast the brass missed the show.**

Henry J. Kaiser's aluminum-domed convention hall (pictures)—part of his Hawaiian Village resort at Waikiki—was put together so fast that company VIPs from the mainland arrived too late to watch the construction show. The whole job of erection was supposed to take five days. But when Kaiser arrived to kibitz his brain child, two days after the Jan. 14 start, the finished dome was being eased down onto its concrete piers.

The Waikiki dome has a 144-ft. diameter and is 48 ft. high; it can hold 1,800 people now, and there's space for a portable stage and a balcony that could accommodate 200 more. But the size of other domes could be varied to suit the customer, by adding or subtracting the diamond-shaped aluminum



Dome, virtually completed, is eased onto its piers.



Here's the end product, ready for the landscapers.



## THE PACKAGING NEWSFRONT

An example of important cost-cutting in packaging has been demonstrated in the synthetic rubber industry with the adoption of a special type of export bag manufactured by Bemis. Chemical companies in the synthetic rubber business figure the savings at about \$17.15 per thousand bags.

Synthetic rubber slabs are difficult to package because the product is sticky and tends to pick up virtually all foreign matter it touches.

Since substantial package strength is necessary for export shipment, the original method of packaging was to put the slabs in multiwall paper bags which were then put in burlap overslips. The double packaging was sloppy and expensive and the double handling was wasteful.

The new method, using single Bemis Waterproof (laminated-textile) Bags, saves \$10.50 per thousand in bag cost and approximately \$6.65 per thousand in labor cost... provides a neat, compact package with ample strength to withstand the rigors of export handling.

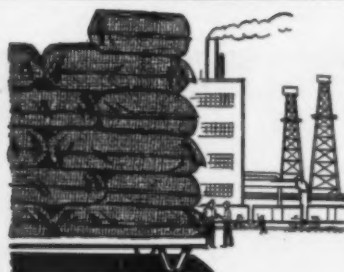
Bemis has overcome the stickiness of the rubber slabs by release-coating the inner paper ply, which makes both filling and emptying easier and faster.

You can answer so many needs with Bemis products... both in and out of the packaging field. If you need a package that will increase sales, give better protection to your product, or simply save you money... or if you are interested in other Bemis developments in paper, textiles or plastics... consult us. Bemis products meet an astounding number of industrial, commercial and recreational requirements, and new uses are continually coming to light. You may want our engineers to create a new package, or to advise you on packaging methods. Please write us.

# Bemis



408 D Pine Street  
St. Louis 2, Mo.



panels that are fitted together in a decorative geometrical pattern.

• **Many Uses**—The customer, Kaiser says, might be any city of over 10,000 population that needs an auditorium. For example, he says he could offer New Orleans a sports arena seating 14,000 that would cost less than \$1-million, instead of the \$5-million he estimates for ordinary construction. Other potential uses seen by Kaiser are: armories, amusement centers, aircraft hangars, and silo-type storage units.

In every case, Kaiser says, the attractions would be low cost, speed of construction, and unobstructed floor space (there are no internal supports).

Kaiser figures that the domes, regardless of size, would cost about \$4 per sq. ft. Thus the variables would be, of course, the number of panels, and the size of the foundations.

The actual erection of the domes is—or at least looks—easy. In the Waikiki hall, the 25 foundation piers were set first, and then a 96-ft. temporary construction mast was set up in the center. Next, the ring of panels closest to the mast were bolted together, and hoisted just enough to make room for the next, and slightly larger, ring of panels. This process was repeated until the whole dome was assembled. The final step is to remove the mast so that a cover could be bolted over the hole in the center.

In preparing the panels, each one is strengthened by an aluminum cross brace; these struts are the only structural pieces in the entire dome. The Waikiki dome, though it weighs only 39,000 lb., is designed to withstand winds double the force of a hurricane.

• **Competitors**—The Kaiser dome isn't the only one of its general type on the market. For some time, R. G. LeTourneau, Longview, Tex., has had an all-aluminum, stressed-skin dome. LeTourneau's Semisphere is 300 ft. in diameter and 85 ft. high, about twice the size of Kaiser's Waikiki model. Architecturally, the Semisphere looks less exotic than Kaiser's. It is built up of formed aluminum sheets, so that it seems to consist of a series of aluminum rings. LeTourneau estimates the cost at about \$3.50 per sq. ft.

R. Buckminster Fuller, who did the preliminary engineering for Kaiser, is now experimenting with domes that are a lattice of metal struts. The cost of Fuller's domes will depend on the material used to cover the struts. On a production basis, he guesses he can build fabric types for \$1 per sq. ft., and solidly enclosed models for \$2 per sq. ft. These prices, still, are in the future. Washington Aluminum Co. of Baltimore—builders of a strut-type, plastic-covered dome for the military—cites a cost figure of about \$11 per sq. ft. **END**



## NEW PRODUCTS



CHEMICAL ANALYSES can be made quickly with this new machine.

Perkins-Elmer's new pushbutton instrument for finding out what's in chemical compounds and mixtures has been developed with the small company's pocketbook in mind. The double-beamed infrared machine is easy to operate, saves the valuable time of skilled laboratory technicians. Once a sample is inserted, the instrument takes over and graphs the identity and quantity of the chemical components present on a removable drum.



DRUM provides record of components.

## Cheaper Chemical Testing

A quick and easy method of making chemical analyses is now within the reach of the small laboratory and company. Perkins-Elmer Corp., Norwalk, Conn., has developed a double-beamed infrared instrument (pictures) for conducting qualitative and quantitative analyses that costs about one-third as much as models previously available. It sells for \$3,850.

• **The Problem**—Industry has found that in many cases the classical methods of chemical analysis are too slow for routine inspections during production runs. On top of that, they tie up skilled

laboratory employees who might be more usefully occupied in more complex research. Large companies have licked the problem by using sensitive infrared instruments that divulge the chemical components of compounds and mixtures by measuring infrared absorption levels. But until now, smaller outfits found this equipment too expensive.

• **New Instrument**—The Perkins-Elmer instrument lacks some of the sensitivity of more expensive models, but it does make it possible for a semi-skilled technician to conduct qualitative and quantitative analyses and get a complete per-

**Fire! But  
this building  
didn't burn**



Butler building and contents remained undamaged after this severe oil fire.

it's a fire-safe  
**BUTLER**  
metal building

Time and again, fire-safe Butler metal buildings have earned an unexpected bonus for their owners. In roaring infernos, they have shielded their contents—with only a few dollars worth of damage to easily replaceable covering panels. They have contained interior fires, leaving surrounding inflammable buildings untouched.

If fire strikes your present buildings—rebuild with Butler. Half finished at the factory—they are bolt-assembled in less than half the usual erection time. Besides being fire-safe, there are many more important Butler construction features that save you important money.

For the full story why Butler metal buildings are your safest and best buy, phone or write your Butler Builder. His name is listed under "Buildings" in the yellow pages of your telephone directory. Or write direct.

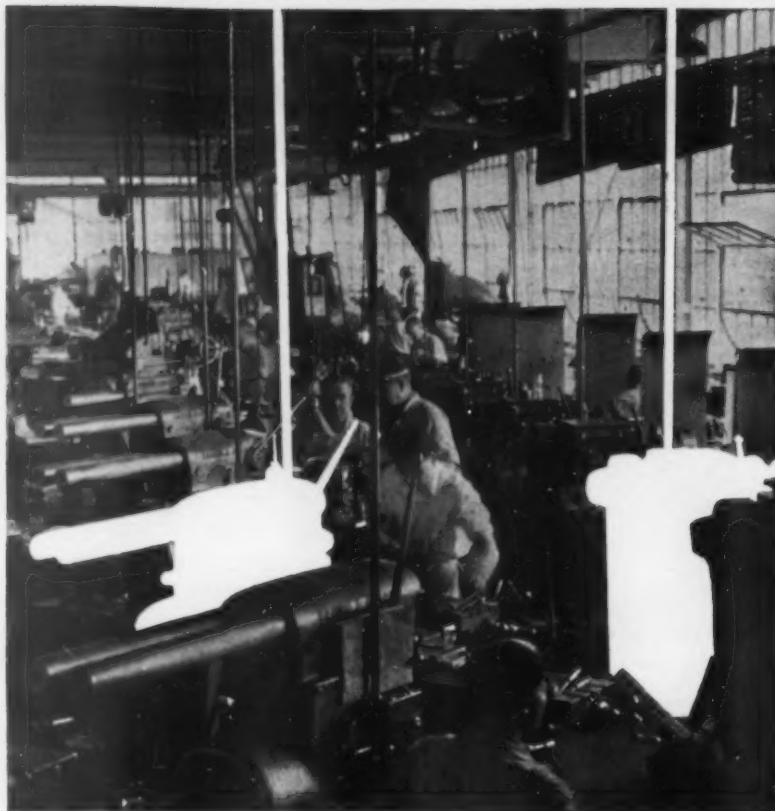


**BUTLER MANUFACTURING  
COMPANY**

7313 East 13th Street  
Kansas City 26, Missouri

Manufacturers of Steel Buildings • Oil Equipment  
Farm Equipment • Dry Cleaners Equipment  
Outdoor Advertising Equipment • Special Products

Sales offices in Los Angeles, Richmond, Calif.  
Houston, Tex. • Birmingham, Ala. • Minneapolis, Minn.  
Chicago, Ill. • Detroit, Mich. • New York City  
& Syracuse, N.Y. • Washington, D.C.  
Burlington, Ontario, Canada



## How an appraisal drove the "ghosts" out of the plant

When we analyzed the property records of a manufacturing company\*, the verification of physical assets disclosed that many items of equipment, still on the books, had long since been disposed of. They were the assets of yesteryear which were disclosed as the "ghosts" of today, distorting property records.

American Appraisal Service is a valuable tool in property control, providing management with up-to-date authoritative information about the existence, cost, or value of assets and the adequacy of depreciation provisions. It is based on The American Appraisal Company's over-half-century experience as the leader in the field of valuation for purposes of insurance, accounting, property control and corporate financing.

One of our representatives will be glad to advise you about your Appraisal needs.

\*Actual case from our files

Send for our valuable booklet  
"How You Benefit by American Appraisal  
Service." It's yours for the asking.



Home Office: Milwaukee  
Atlanta Kansas City  
Baltimore Los Angeles  
Boston New Orleans  
Buffalo New York  
Chicago Philadelphia  
Cincinnati Pittsburgh  
Cleveland St. Louis  
Dallas San Francisco  
Detroit Washington

affiliated:  
Canadian Appraisal Company, Ltd.  
Montreal and Toronto

*The Leader in Property Valuation*

**The  
AMERICAN  
APPRAISAL  
Company**

*Since 1896... Largest... Most Widely Used*

manent record of what he finds. Often he can do the job in a matter of minutes, where it used to take a skilled technician hours or even days.

The instrument, called an Infracord Spectrophotometer, is a compact self-contained unit that can be set on a desk. It is 27½ in. long, 17 in. wide, and 8½ in. high, weighs 120 lb., and uses a 120-volt, 60-cycle power source.

• **How It Works**—To work it, all an operator has to do is put a piece of chart paper on the drum, insert the sample in the instrument, and push a button. The instrument does the rest. At the end of the 15-min. rotation of the drum, the chart is removed. The line graph that has been drawn by the instrument's inked stylus is then compared with a standard set of graph charts. When one is found that matches, the operator knows what the components of his sample are. The quantity of components present can be found by measuring the curves and calculating their concentration on a calibration curve.

Although its instrument is less expensive than other models, Perkins-Elmer says it has such features as the cancellation of atmospheric background, minimization of stray light, and high resolution that previously were available only on more costly instruments.

## NEW PRODUCTS BRIEFS

An electronic bearing tester, manufactured by Sperry Products, Inc., Danbury, Conn., consists of a metal probe connected to an electronic amplifier equipped with a calibrated meter, loud-speaker, and controls. The probe picks up machine troubles and transmits them as an electrical impulse to the amplifier. The amplifier turns the impulses to noise, which can be metered by the operator for a more accurate check. It costs approximately \$400.

A new no-shift drive system for use in hoists, power shovels, and similar equipment eliminates the gear shift and accelerator. The manufacturer, Funk Aircraft Co., Coffeyville, Kan., says that moving a single lever forward or in reverse engages the clutch and that further lever movement controls the speed much the same as an accelerator. The system is called the Revers-O-Matic and sells for approximately \$400.

A hammered-effect lacquer that dries fast and can be easily applied in one coat has been developed by the Maas & Waldstein Co., Newark, N. J. The maker says the lacquer adheres well to most metals. It's called Dulac One Coat Hammertone Lacquer Enamel and is available in a wide range of metallic colors. The price: \$3.75 a gal.



*Again, the Inauguration is Commemorated*  
**IN BEAUTIFUL BRONZE**

Just as it was four years ago, the official 1957 Inaugural Medal is to be a product of private enterprise. As a result of the great demand for these pieces in 1953, over 20,000 bronze replicas are being prepared by the Medallie Art Company of New York City.

Of special interest is the fact that the portraits of both the President and Vice President will appear on the face of the medal. This is only the second time in the history

of Inaugural Medals that two portraits have been shown.

For this historic memento, a special bronze alloy, precisely formulated to exacting specifications, is now being produced in the mills here at Bristol. If you would like to own one of these handsome medals, reproduced from models by the distinguished American sculptor, Walker Hancock, send your check for \$3.50 to the Inaugural Committee, 1022 15th Street, N.W., Washington 5, D. C.



*The* **BRISTOL BRASS CORPORATION**  
*Makers of Brass since 1850 in Bristol, Connecticut*

OFFICES AND WAREHOUSES IN:

ALBANY • BOSTON • BUFFALO • CHICAGO • CLEVELAND • DETROIT • MILWAUKEE • NEW YORK • PHILADELPHIA • PROVIDENCE • ROCHESTER • SYRACUSE



# Exporting Economic Advice

Foreign governments increasingly rely on private consultants from the U.S. One of the leading firms is Klein & Saks (pictures below), but dozens of others have staked out a claim overseas.



**JULIUS KLEIN** is a former Asst. Secy. of Commerce who served under Pres. Hoover.



**JULIEN M. SAKS** had export-import experience before teaming up with Klein.

**I**N MID-1955, Chile was on the brink of runaway inflation. Then the government called in Klein & Saks, economic consultants who were helping doctor the economic troubles in neighboring Peru. It wasn't long before the Chilean government, at Klein & Saks' recommendation, was tackling the country's inflation with a new "law on stabilization of prices, wages, and salaries."

Today, thanks in good measure to Dr. Julius Klein and Julien M. Saks (pictures), founding partners of Klein & Saks, Peru can boast a relatively stable economy, and Chile is edging closer to economic solvency.

• **Roving Advisers**—In the meantime, Klein & Saks is getting to look like a roving Hoover Commission. It aims high—at making big, sweeping changes in the economic policies of Latin American governments. Like the Hoover Commission, it studies problems in detail, then offers bold recommendations that could revamp basic governmental procedures and rock traditional policies. Often, its advice falls on deaf ears.

In any case, Klein-Saks' business of selling broadside economic advice to Latin American countries is booming. For example, the firm has been working in Guatemala under contract with the International Cooperation Administration. Its job has centered on budget accounting, customs procedures, and government reorganization. This week Dr. Klein is in Guatemala to lay the groundwork for a broader study, patterned after that of Peru and Chile. In the offing is still another job—for the Brazilian government.

• **New Service**—Since World War II, this new business of advising foreign governments on economic matters has expanded fast. In Washington, where these economic consultants like to set up headquarters, one man says: "Ten years ago, there weren't two dozen foreign economic consulting firms listed in the phone book. Now they take up two columns."

Klein & Saks probably ranks as the grand peer in this new field, but there's plenty of competition. Since the Korean War, Robert R. Nathan Associates has worked steadily to help Burma put its economy in shape. Right now, Nathan's firm acts more or less as Burma's eco-

nomic development board. Another leading consultant is Continental-Allied Co., only three years old. Already it has done a survey on Liberia's economy. This month it is starting a survey in India—and Jack Bennett, its top man, is now trying to line up Argentina, too.

Besides this Washington-headquartered group, there are a host of consulting firms around the country—most of them traditionally specialists in industrial advice—that have staked out a claim in this foreign field. Booz, Allen & Hamilton now has an international company for advising foreign clients on general business policy. Arthur D. Little, Inc., though primarily an industrial consulting firm, has long made economic studies abroad—for Puerto Rico's Operation Bootstrap; for Iraq, whose Parliament adopted Little's recommendations a year ago; for Nova Scotia and Honduras, where Little staffers continue to supply advice.

• **Academic Source**—You can trace the origins of this business to the campus. A century ago, professors were hiring themselves out to foreign governments. And they still do, as in the case of Harvard University's blueprint for Pakistan's \$2.4-billion development plan.

Under Pres. Woodrow Wilson, the business broadened out. It was Wilson who set up the Dept. of Commerce's Bureau of Foreign Commerce in 1917. As its head, and later as Asst. Secy. of Commerce under Pres. Hoover, Dr. Klein watched the economic consulting field slowly expand—here and abroad.

In 1935 he joined forces with Saks, a financial expert with export-import experience, to form Klein & Saks. As was typical of the business then, the firm concentrated on U.S. clients—a phase of its work it still relies on for some income. (Its three biggest domestic clients: Metropolitan Life Insurance Co., American Smelting & Refining Co., and E. R. Squibb & Sons.)

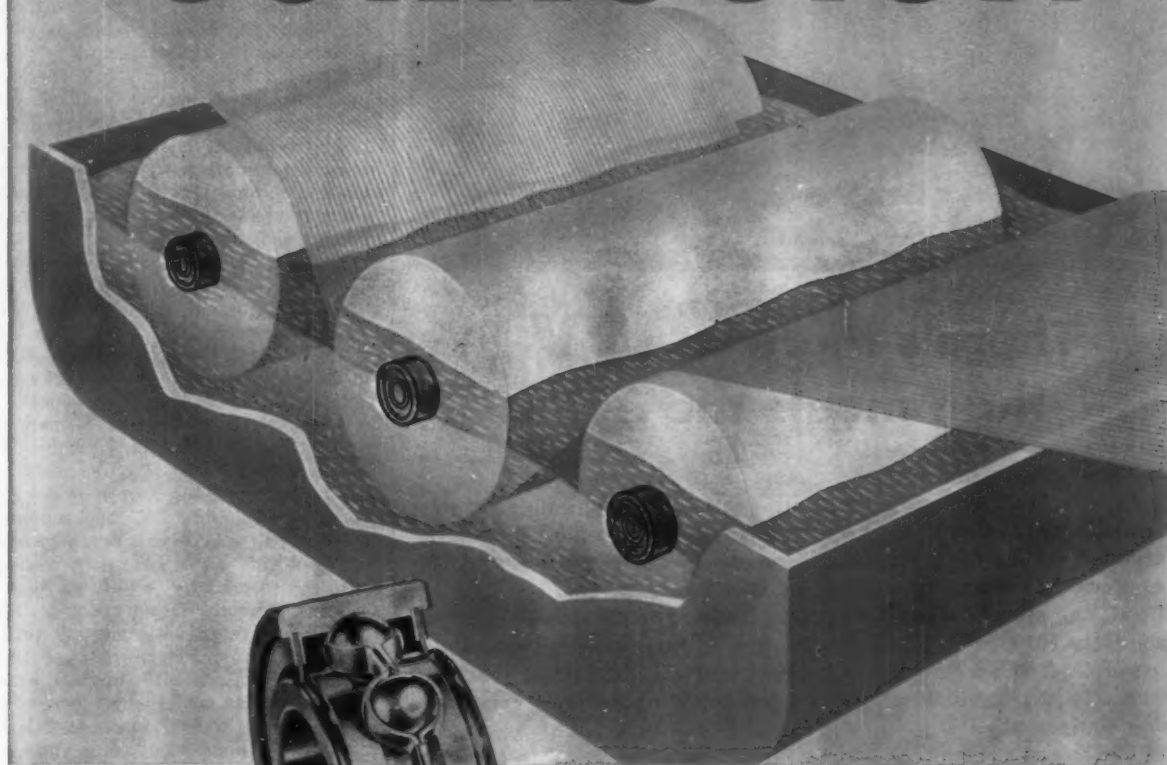
• **Lots of Advice**—After World War II, all sorts of U.S. and international agencies—the World Bank, the U.N., the State Dept., and others—got into the act. But instead of crimping Klein-Saks' business, these agencies have helped create a big market for foreign economic consulting work.

In fact, many experts in Washington

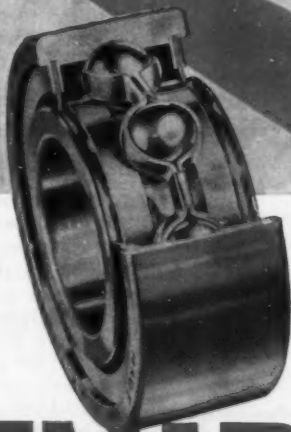


An attitude and an aptitude for solving bearing problems . . .

# CORROSION



Fafnir Stainless Steel  
Wide Type  
Ply-Seal Bearing



# FAFNIR

BALL BEARINGS

In the processing of new synthetic fabrics, the answer to the problems involved had nothing to do with the "solution." It called for a completely new slasher, a machine which coats each strand of the warp with size — a starchy (and corrosive) solution which toughens the warp and reduces the likelihood of breakage during the weaving process.

In this ingenious machine, developed by a leading manufacturer of textile equipment, the bearings on the size vat rolls are completely immersed in the solution. Fafnir stainless steel ball bearings are used. These bearings, protected by double seals of Teflon coated fibreglass, have been running submerged for more than two years.

Bearings of stainless steel may be only of passing interest to you. But Fafnir's "attitude and aptitude for solving bearing problems" — *that's* worth bearing in mind. The Fafnir Bearing Company, New Britain, Connecticut.

MOST COMPLETE LINE IN AMERICA





## There's more to **ITV** than meets the eye

The magic of television offers a valuable new tool to American industry, institutions, transportation and utilities. In operation, industrial television (ITV) is simplicity itself. However, the assembly of all the equipment needed for a complete installation—and that's where Graybar enters the picture—has more to it than meets the eye.

First, the system needed must be planned for the job it is to do. Second, the components must be procured as rapidly and economically as possible. And here's where it will pay you to call Graybar first. For Graybar is your finest *single* source for *everything* in industrial television equipment.

ITV cameras... monitors... receivers (direct view or projection)... distribution equipment... via coaxial cable... via microwave... via common-carrier... lighting—indoors and out... test equipment... tubes... sound equipment... picture recording equipment... pole lines and hardware... tools... viewfinders... lenses... remote control... intercommunication equipment... engineering service\*... maintenance service\*... **ITV EXPERIENCE.**

\*through qualified service organizations

We have compiled a brand new 56-page catalog which contains descriptions and data on the equipment needed for an industrial television system. We will be more than glad to send to any firm located in the U.S. a copy of this catalog. No cost or obligation, of course — simply write us on your company letterhead.

638-22

GRAYBAR ELECTRIC COMPANY, INC.  
420 Lexington Avenue, New York 17, N. Y.

**CALL GRAYBAR FIRST FOR...**



have left their official jobs to strike out on their own. Nathan, a braintruster for both the New and Fair Deal, was one of the first to branch out. Bennett left the World Bank to found Continental-Allied; Edward Tennenbaum, his partner, was with ECA in Greece.

• **Footholds Abroad**—Klein-Saks' operation is a good illustration of the pay-offs and pitfalls of this consulting work. In mid-1949, Peru agreed to pay Klein-Saks \$50,000, plus expenses, for a quick three-month survey of the country's economy. This soon turned into a major overhaul job—a one-year contract followed by contract renewals at six-month intervals. Under this program, Klein-Saks got \$10,000 a month, plus all expenses for a 20-man staff.

After an intensive study, Klein-Saks prescribed some drastic medicine for the Peruvian economy: Abolish controls, temporarily boost wages and salaries, lift import restrictions, liberalize tax and mining laws to attract foreign companies and investors, let currency find its own free level.

Initially, iron-fisted dictator Manuel Odria stuck closely to the recommendations—in spirit, if not always to the letter—and soon put his country on the comeback trail. Klein personally kept in close touch with Odria and his cabinet, and the operation worked smoothly.

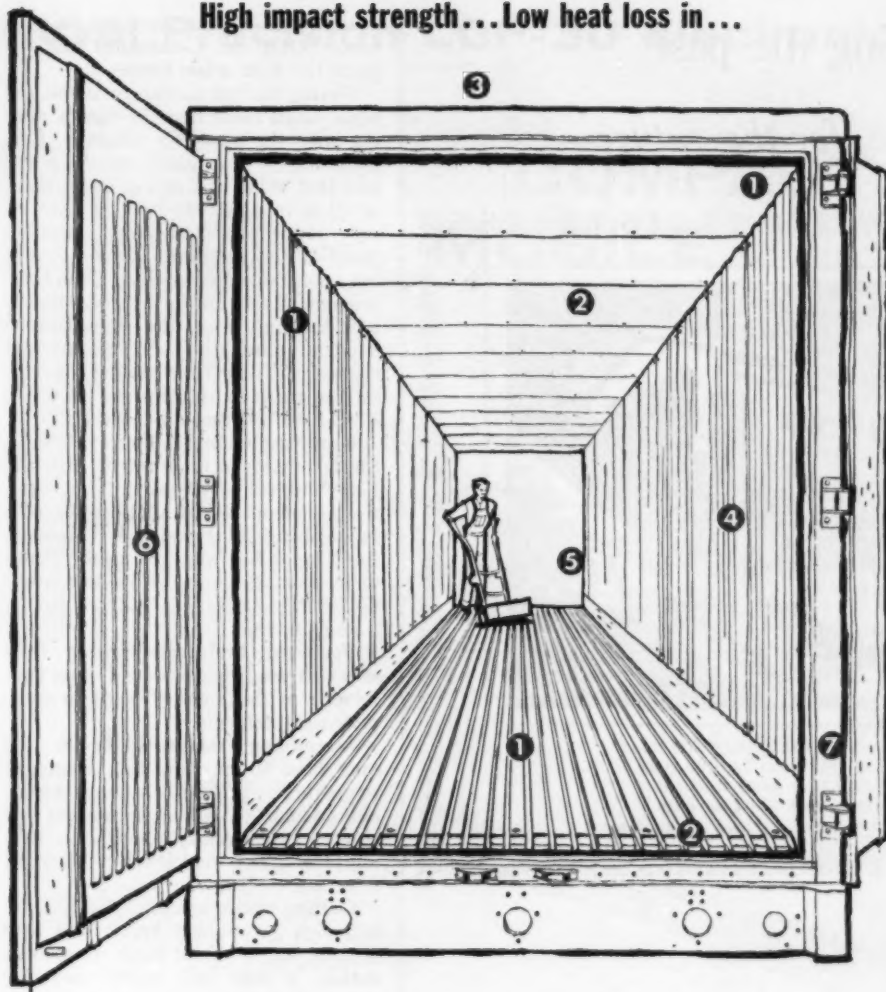
• **Urgency Eases**—Yet the Klein-Saks mission has since had some rough sledding. After the first recommendations had helped Peru, the Korean War gave the economy another lift. At this point, the Peruvian government began to feel the problems Klein-Saks was tackling were not so urgent.

Thus, the early recommendations for freeing foreign exchange, lifting price controls and import restrictions, and cutting out commodity subsidies were adopted readily, while later recommendations on a revised income-tax law, new custom-house code, and elimination of various state monopolies have run into a stone wall. One top governmental minister has belittled Klein-Saks' main report. Numerous smaller reports are gathering dust in the files of the Ministry of Finance.

Despite Klein-Saks' declining influence in the government—and the government's own troubles with a large deficit—U.S. and foreign investors today have new confidence in Peru. Because of Klein-Saks' basic advice, which recently elected Manuel Prado is following, the country is no longer primarily an agricultural country. Oil, mining, and industrial interests are beginning to move in on a large scale.

• **Chilean Progress**—In Chile, so far, the Klein-Saks mission has met with success. It went in there under an eight-month contract in September, 1955—for a fee reported to be \$310,000. Since then, it has had two contract re-

High impact strength...Low heat loss in...



1. Posts, roof bows and floor channels made of Strick Lamicor® from glass-reinforced RCI POLYLITE polyester resin. Not a single case of fatigue failure in two years of over-the-road testing.
2. Ceiling lining and shear sheets made by Strick from POLYLITE and glass cloth or mat laminates up to 50" x 100".
3. Translucent skylights of very high impact strength Lamicor made of polyester resin with 45% glass reinforcement.
4. Corrugated side linings (with or without slotted edges) made of fibrous glass-reinforced POLYLITE. Strick offers these panels with either vertical or diagonal corrugation.
5. Lining panels made of Strick Lamiclad® from POLYLITE and plywood laminates have excellent impact and cleaning properties.
6. Strick all-plastic trailer doors 4" and 6" thick made of reinforced POLYLITE resin in sizes up to 44" x 106".
7. Door framing made by Strick of reinforced POLYLITE in shapes up to 110" long.

## Trailer components made by STRICK PLASTICS from RCI POLYLITE RESINS

● For two important reasons the Strick Plastics Division of Fruehauf Trailer Company, Perkasi, Pa., makes a wide range of trailer components from RCI POLYLITE polyester resin.

First, the strength-weight ratio of these reinforced polyester parts is superior to both aluminum and steel.

Second, the K-factor of heat loss through these plastic components is a small fraction of that for aluminum or steel. This advantage is especially important in reefer construction.

In "reefers", plastic components also eliminate the danger of cargo spoilage from wood stringers that have become rotted, pest-infested or odor-contaminated. Plastic parts made with POLYLITE resin do not rot or attract pests. They are durable and easily cleaned.

At RCI we have three lightweight, plastic trailers that were made for us by Strick. Entire exterior, interior and all structural members of these insulated vans are made of reinforced RCI POLYLITE polyester resin.

In small parts or something as big as a whole trailer POLYLITE construction can offer you advantages, too. Do you want lightweight strength? Durability? Easy maintenance? Bright built-in colors or translucence? Write to RCI about POLYLITE for your products. Ask for Booklet A.

Creative Chemistry . . . Your Partner in Progress



### REICHHOLD

Synthetic Resins • Chemical Colors • Industrial Adhesives • Plasticizers  
Phenol • Formaldehyde • Glycerine • Phthalic Anhydride • Maleic Anhydride  
Sodium Sulfite • Pentaerythritol • Pentachlorophenol • Sulfuric Acid

REICHOLD CHEMICALS, INC.,

RCI BUILDING, WHITE PLAINS, N. Y.



# Preserving the past for the future—



*"For a hundred years this bridge has stood  
But for the last fifteen has been no good  
And loving hands have patched its pants  
Till nought remains but food for ants."*

—Board of Selectmen, Town of Charlemont



To the people of Massachusetts, as to the Selectmen of Charlemont, the covered bridges of bygone days represented a historic and romantic link with the past . . . one which they were sorry to see fall into decay. With Yankee foresight they studied the reconstruction of 12 covered bridges . . . looking not only to the present and the immediate years ahead, but also to the faraway future in their planning.

These covered bridges were rebuilt to look exactly like the originals—except that the all-important timber trusses were made of termite and decay resistant Wolmanized® lumber. This lumber, pressure-treated with Wolman® salts preservative, retained all the natural advantages of wood yet was pressure-protected through chemistry for years to come.

You may never rebuild a rustic bridge, as did the Bay State fathers, but if you use wood where it will be exposed to humidity, condensation, water or ground contact—Wolmanized pressure-treated lumber can protect your investment against rot and termite damage. Learn more about "preserved" lumber before you invest another dollar!

## Wolmanized

### Pressure-Treated Lumber



The **HOW** and **WHY** of Wolmanized lumber and many suggestions for residential, commercial and institutional uses are covered in this handbook. Write for a copy.

Wolman Preservative Dept., Koppers Company, Inc.  
1450 Koppers Building Pittsburgh 19, Pa.

W-10

news—the last one carrying to next June. Only the Communist left has given the team a bad time.

During the first six months alone, the team issued more than 50 reports dealing with the country's inflation. One indication of the team's success is the fact that, while the cost-of-living index in Chile rose 84% in 1955, it went up only some 38% last year. Another proof is the way Pres. Carlos Ibanez has rapidly implemented Klein-Saks' program. Last year, for instance, Ibanez got backing from the International Monetary Fund, the U.S. Treasury, and a group of New York banks for a \$75-million currency stabilization fund that Klein-Saks had recommended.

Until last October, Prescott Carter, the team's top man (formerly with the First National City Bank of New York), worked smoothly with Oscar Herrera, the Minister of Finance & Economy. But Ibanez has split the ministry into finance and economy, with a new minister heading each, and Carter is having a rougher time.

• **Perennial Problems**—Viewing their over-all work, Klein-Saks and other consultants in the business point to three perennial problems:

**Assembling a team to do the job.** The men have to be specialists, bilingual, sympathetic to local customs abroad, old enough to command respect yet young enough to take to new ideas, willing to work at a modest salary—often on a temporary basis.

**Getting advice accepted.** Sometimes, a foreign government knows that if it accepts, say, a World Bank recommendation, a loan will follow, but the recommendations of private consultants don't carry that weight. Yet the private consultants have one advantage: Their clients are paying for advice, thus take some recommendations to heart.

**Maintaining prestige.** If a foreign government fails to reform its exchange system, for instance, it hardly blames the U.S. or international agency that recommended the reform. But the country tends to blame a private consultant for its failures. That can be death for a private firm, which gets new clients on the basis of jobs done in other countries.

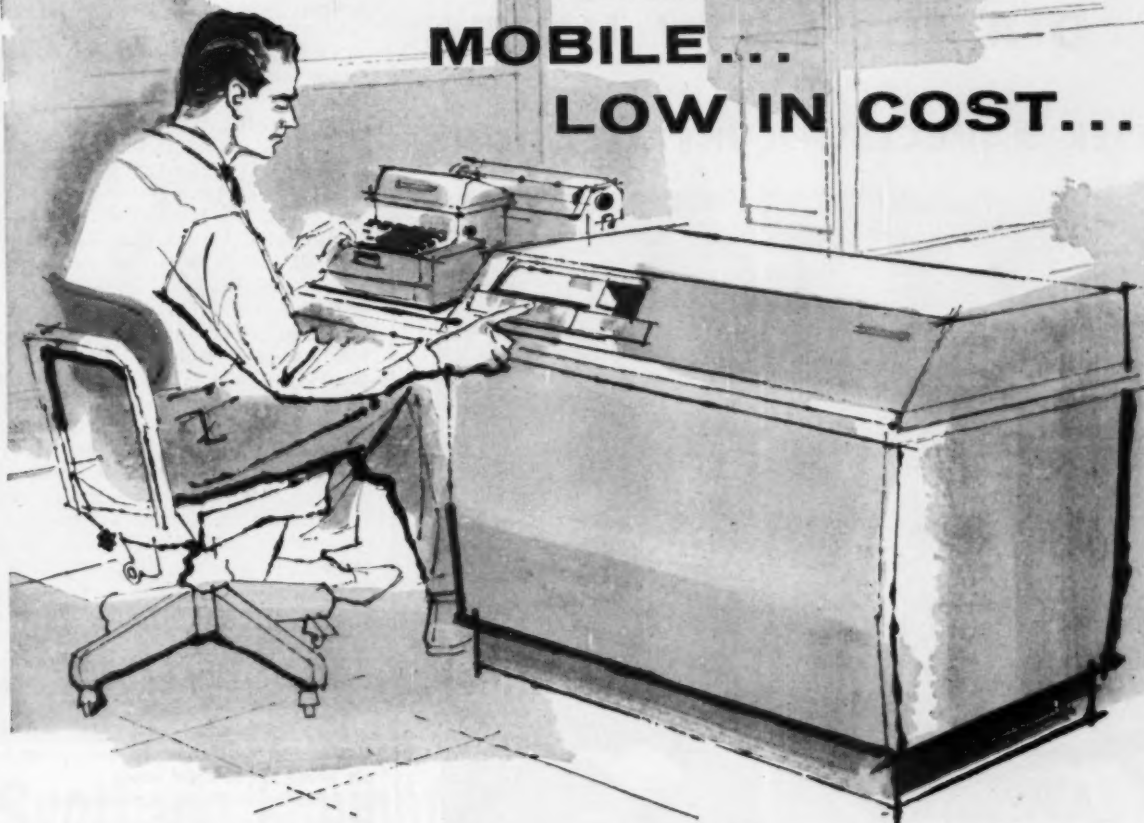
• **Advantages**—Yet the private consultant has some firm advantages, too, over agencies that hand out free advice. As one man puts it: "If you're trying to sell a reform—and salesmanship is the most important tool we have—you can take the minister out and get drunk. You can't do that if you're with ICA."

Klein himself says: "When a government comes to us, it knows we aren't speaking for Washington."

That removes one of the biggest blocks—nationalistic fear that Washington is butting into a country's domestic affairs when it gives advice. **END**

# Royal Precision LGP-30 Electronic Computer

**COMPACT...  
MOBILE...  
LOW IN COST...**



## helps increase productivity of valuable engineers

**Time-Saving.** The LGP-30, a stored program computer, eliminates much detailed calculation and makes more time available for creative engineering.

**Personalized.** The LGP-30 brings high-speed electronic computation directly to the desk of the individual engineer. Most problems can be programmed completely right in his own office and followed through to the end — with modifications made from intermediate results as required.

**Complements central computing installation.** The LGP-30 can serve as a "satellite" to a central computing installation for those problems which are performed more effectively on a decentralized basis. New programming techniques permit the use of one code for both machines. Thus, programs may be prepared in the central computing facility directly from engineers' equations, and the computations done on the LGP-30.

### Outstanding features of LGP-30

- Operates from regular wall outlet (110 volts AC).
- Requires no expensive installation . . . no external air-conditioning.
- Stored program computer.
- Unusually large "memory"—4096 words.
- Enters and reports numerical or alphabetical information by punched paper tape or keyboard.
- High-speed operation . . . finger-tip control.
- Lowest cost ever for a "complete" computer.
- Excellent service facilities available.
- Now being delivered.

For further information, write Royal McBee Corporation, Data Processing Equipment Division, Port Chester, N. Y.

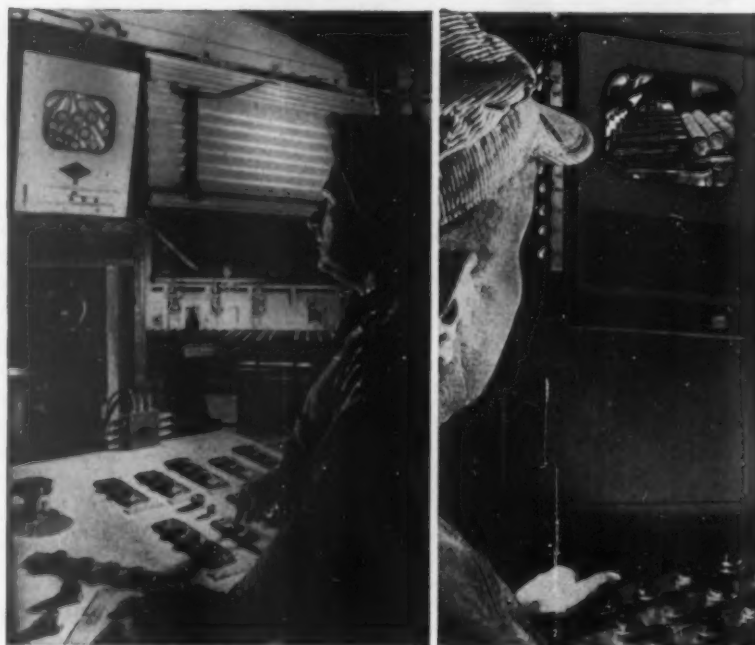
**ROYAL MCBEE**  
CORPORATION  
GENERAL OFFICES: PORT CHESTER, N. Y.

# TIMKEN Company

## ORDERS 2 MORE DIAMOND ITV UNITS

(WIRED TELEVISION)

### AFTER 3 SUCCESSFUL INSTALLATIONS



Picture of furnace interior on Diamond ITV viewing screen is watched by remote dispatcher. A flip of a switch and he SEES conditions in another furnace on same screen.

Operator at another control pulpit SEES a visually inaccessible billet loading area for a pusher type furnace.

The Timken Roller Bearing Company made its first application of Diamond Industrial TV in August 1951 for remote observation of the interior of a tube-cooling furnace. Since that time two additional installations have been made to watch (1) the inside of another furnace and (2) the remote handling of billets by a crane. The success of these has resulted in a recent order for two more sets of Diamond ITV.

You, too, probably can use Diamond ITV to substantial advantage. Call your Graybar Distributor or use the coupon below.

7530



#### DIAMOND POWER SPECIALTY CORP.

"FIRST IN INDUSTRIAL TELEVISION"  
ELECTRONICS DEPT., P.O. BOX 57D  
LANCASTER, OHIO

Please send me without obligation a copy of new bulletin showing how Diamond Industrial (Wired) Television will help me reduce costs, improve quality, increase sales and aid safety.

Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

## Reds Woo India

Soviet Marshal Zhukov makes "good will" tour to bolster Russian role as India's helper.

Soviet Marshal Georgi K. Zhukov turned salesman last week and flew into New Delhi for an 18-day "good will" tour of India. Zhukov's state visit gives Prime Minister Nehru—who said goodbye to Communist Chinese Premier Chou En-lai in the morning, then had Zhukov for lunch—another chance to play what he considers his role as a middleman between the two major power blocs.

Zhukov comes to make one more pass at Indian public opinion—and to reinforce Moscow's faltering role, launched in 1954, as a source of economic aid for the subcontinent (BW—Oct. 2 '54, p150). But India's economic planners are more wary of Russian offers than they were a few months ago. There is a lot of criticism of the slow pace of progress on the steel mill the Soviets are supposed to be building (BW—Jan. 5 '57, p97). And the Indians are well aware of the fiasco of Russian aid to neighboring Burma.

Yet the job of economic development is so big that even the most conservative factions of Nehru's Congress Party think New Delhi ought to accept Moscow's gifts.

- **Largess**—In addition to the controversial steel mill, these Russian projects are going ahead right now:

- Two fertilizer plants will be set up with a Russian ruble loan of \$120-million.

- A Russian mission has blue-printed a giant complex of heavy industries. Delhi planners, however, have already sliced in half one part of this plan—a \$200-million plant—reportedly because of the steel mill slowdown.

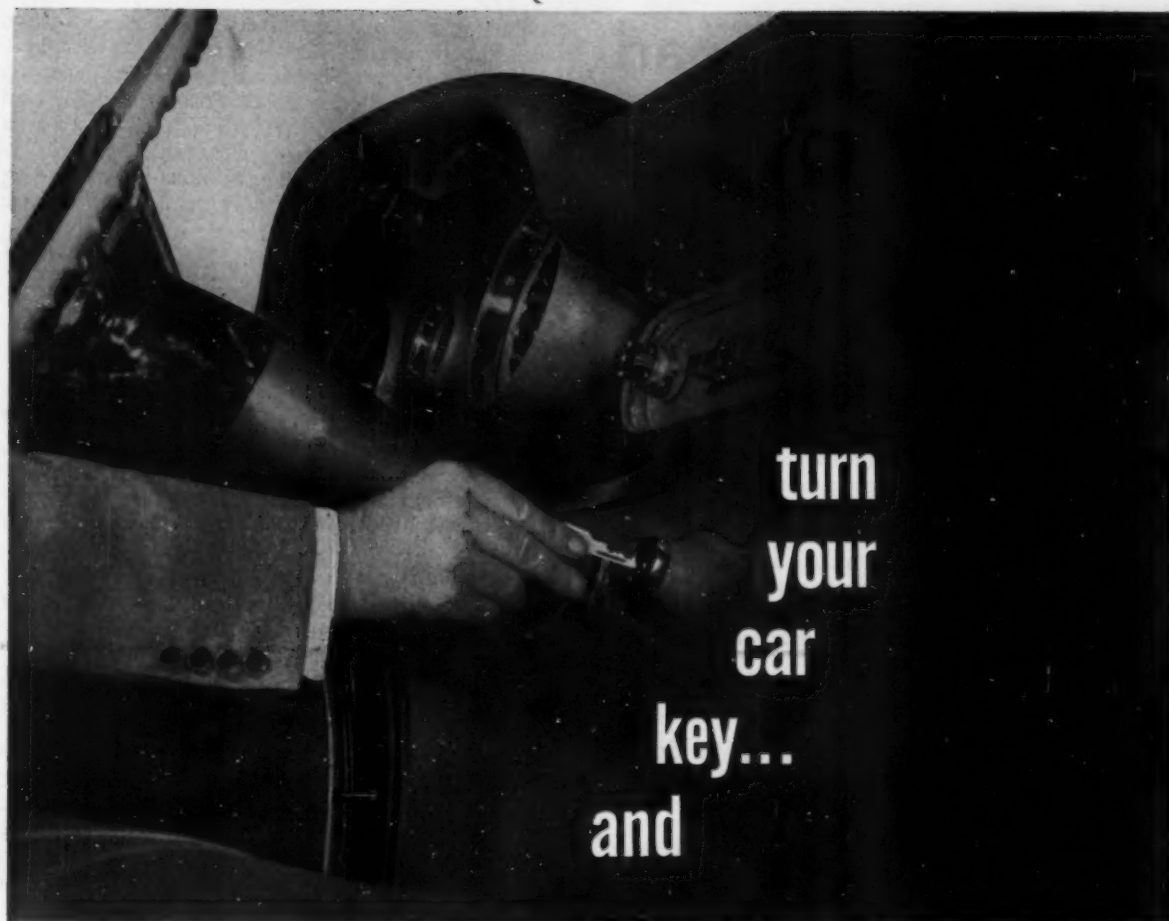
- A Soviet oil mission is progressing in northwest India, with crews operating Romanian-built rigs.

- Russians have offered an optical glass plant on better terms than either the West Germans or Japanese.

- **New Inducements**—Zhukov may again volunteer to ship Ilyushin fighters to India. And he'll probably take a look at the first jet fighter designed especially for India (by Messerschmitt of Germany), now being readied at the Hindustan Aircraft plant in Bangalore.

Meanwhile, U.S. and Indian officials in New Delhi are ironing out details of how to spend jointly controlled U.S. counterpart funds in India during the next fiscal year. Delhi sources expect to see more funds diverted to industry than in the past. **END**





## Synthane laminated plastics report for work



Breaker Arms for tractors and outboard motors are cut from lengths of molded laminated. Breaker arm bushings and rubber angles are important ignition components.

A turn of the ignition key and the thousands of parts which make up your car go to work as a team. Under the dash or under the hood are dozens of parts made of Synthane laminated plastics. They may seem insignificant but they're as necessary as an owner's license.

Take away Synthane laminated plastics and you have a car that won't start, a generator that won't run, lights that won't light, or a silent radio or motionless fan—which may give you some idea of the importance of a product like Synthane in the automotive industry.

Synthane laminates are excellent electrical insulators—they resist moisture—smile at oil—are easy to machine and mechanically strong. Synthane laminated plastics are available in sheets, rods and tubes or as parts completely fabricated to your designs and specifications.

For more information about the many properties of Synthane laminated plastics and how you can benefit by using Synthane materials and fabricating services, write for our latest product catalog. Synthane Corporation, 1 River Road, Oaks, Pa.



EASILY MACHINED



DIELECTRIC STRENGTH



OIL RESISTANCE



DIMENSIONAL STABILITY

# SYNTHANE

... industry's unseen essential.

SYNTHANE CORPORATION, 1 RIVER ROAD, OAKS, PA.

# In Business Abroad

. . .

## Chrysler Is Reported Dickering For Assembly Plant in Venezuela

Chrysler Corp. has heard the call of that lucrative, dollar-rich Venezuelan market. Reports from Caracas this week indicate that Chrysler's representatives are dickering for a local assembly plant. Venezuela now has only a General Motors assembly plant with an output rated at 12 cars per hour.

Caracas says Chrysler is dickering to buy the plant of Ensamblaje Venezolana, SA, for a reported \$10-million. The plant now is held by Venezuelan interests. Negotiations are reportedly headed by John P. Phelps, Chrysler's distributor in Venezuela.

Chrysler's cars are being assembled in Venezuela on a license arrangement. If the deal goes through—and it is expected to jell within the next week or so—Chrysler is reported ready to put in new investment to expand the facilities.

. . .

## 1957 U.S. Farm Exports Expected to Set Record; But Long-Term View Is Grayer

American farm exports—which reached a 30-year peak in 1956—are likely to go 25% beyond that figure this year. An Agriculture Dept. study cites as explanations for the increase: the government export programs, the increase of world population, the worldwide boom, rising consumer incomes, and the rising gold and dollar reserves of foreign countries.

The long-term outlook is less optimistic. The department predicts that there will be stiffening competition for U.S. farm products in world markets in the years to come. Agricultural programs in underdeveloped countries will soon be producing results in the world markets. Red China, Agriculture Dept. experts say, will invade the free world with produce at rock bottom prices which it plans to use to pay for capital goods imports.

. . .

## Brazil Gets Together With Poland In \$10-Million Deal for Steel Rails

The Brazilian government has signed a contract with Poland to buy 72,000 tons of heavy-gauge rails worth \$10-million. Brazil will pay Poland primarily in cotton, but with coffee, hides, and cocoa, too.

Brazil's Volta Redonda makes some light rails. But it dislikes turning out large quantities of heavy rails because they use too much steel—and aren't so profitable.

Actually, the \$10-million deal came to a head before Poland squeezed out from under Moscow's direct control. Brazilians say Poland normally doesn't like exporting

essential products like steel rail. But it needs cotton, thus willingly bargains with steel shipments.

Now, however, Brazilians think that the U.S. will step in with cotton and other goods Poland needs. Brazil consequently won't be so attractive a customer as a trading partner for Poland.

Yet Brazil is talking up other possible deals, including purchase of Polish coastwise ships and coal in exchange for Brazilian iron ore.

. . .

## Bosch's U.S. Subsidiary to Open Major Branch Office on West Coast

Robert Bosch Corp., New York subsidiary of West Germany's huge international maker of electrical goods, has announced its first major branch office in this country. The offices in San Francisco will serve the Pacific Coast and Mountain area. George Krieger, president of the U.S. company, said Bosch will also build a technical servicing center in New York.

Meanwhile, Bosch is indicating it might go into a fullscale U.S. product line. Foster Perry, former executive vice-president of American Bosch-Arma Corp. and an expert in fuel injection for gasoline and diesel motors, has been appointed chairman of the board of Robert Bosch Corp.

Bosch in Germany is a mass-producer of fuel injection systems—and Detroit has shown interest in them.

Robert Bosch also recently introduced its spark plugs, starters, windshield wipers, and other auto accessories here. It also plans to move in with a line of kitchen gadgets, radios, TV, and power tools—for home and industry.

. . .

## Swiss See Masked Tariff Boost In New U.S. Ruling on Watches

The Swiss are yelling in all their four official languages this week about a new ruling by the U.S. Treasury on watch imports. The ruling changes the previously accepted definition of what is an adjusted watch. In effect—the Swiss say—the ruling raises the tariff on adjusted Swiss watch imports by at least \$1 a movement.

If 1956 figures are any indication, the Swiss watch industry's export position is strong. Over-all exports of watches, watch parts, and watch movements last year totaled \$288-million. That's \$30-million above the previous record set in 1953. Watch exports to the U.S., the industry's best customer, amounted to \$82-million. What's rubbing U.S. producers of high-quality watches the wrong way is the fact that the Swiss industry is beginning to export cheaper watches and watch movements in greater numbers.

Meanwhile the Swiss watchmakers argue that the Treasury ruling isn't a "clarification" as permitted under the Tariff Act of 1930, but an entirely new definition.

The Swiss admit that they don't yet know just where and how the new ruling hurts them. But they argue that the complications the new ruling will cause are too intricate for them to administer without incurring higher costs.

# How well do you know YOUR HEART?

**A**LTHOUGH heart disease is our nation's greatest health problem, we can face it today with increasing hope and confidence. Through research, a vast amount of knowledge about the heart and its functions has been accumulated.

As studies continue, there is every justification to anticipate further advances in diagnosis, treatment... and perhaps even prevention... of various diseases affecting the heart and blood vessels.

While heart disease is a challenge to medical research, it is also a challenge to you. If you are informed about the heart, you can help protect your own and the hearts of your relatives and friends. The following questions and answers may help you to know your heart better... and give it the care it deserves.

● **Is the heart strong and durable?**

Yes... the healthy heart is one of the strongest organs in the body and it has remarkable reserves of strength. Despite its immense task, a healthy heart can be nearly as efficient as the years advance as it is at age 20. Even at the older ages, a healthy heart is fully capable of meeting the body's needs.

● **Can you do anything to keep your heart in good shape?**

Yes... you can protect your heart by avoiding sudden or prolonged exertion, watching your diet, avoiding overweight, and by getting the sleep and rest you need. You should also have a medical examination every year. Then if heart trouble is found, prompt treatment may control it and make possible a long and nearly normal way of life.

● **Are all heart attacks serious?**

Not necessarily... because some are mild and the

heart can repair itself with care and treatment. In these cases, a person may usually resume normal activities. Even when there are serious complications, patients can often recover if the heart is helped to heal itself. In fact, four out of five of those who withstand their first coronary attack recover and continue to work full time for many years.

● **Are overweight and emotional tension bad for the heart?**

Yes... overweight taxes the heart and blood vessels, according to many scientific studies. So, try to keep your weight about equal to what you should have weighed between ages 25 and 30. Emotional upsets can make your heart beat faster and your blood pressure go up.

● **Can people with heart disease lighten the heart's work?**

Yes... if they learn how to care for an impaired heart. Plenty of rest, protection against infection, proper diet, and avoidance of hurry, worry and strenuous activities can all help the affected heart to carry on. Of course, treatment given by your doctor is important, but the patient himself can do most to safeguard the heart.

● **Is heart disease more prevalent now?**

No... not when you consider these facts: (1) more people are living longer and reaching ages when the heart's endurance naturally ebbs; (2) heart ailments are diagnosed now with greater accuracy, whereas in the past many deaths actually caused by heart disease were blamed on other causes.

COPYRIGHT 1977-METROPOLITAN LIFE INSURANCE COMPANY

**Metropolitan Life**  
**Insurance Company**  
(A MUTUAL COMPANY)



1 MADISON AVE., NEW YORK 10, N. Y.

Metropolitan Life Insurance Co.

1 Madison Ave., New York 10, N. Y.

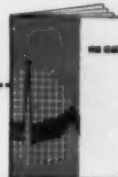
Please send me the free booklet  
"Your Heart," 2-57-S.

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_







**SHEET** of silver winds through finish rolling mill. It's one of the processes involved in fabricating precious metals.

**PLATINUM GAUZE** used as catalysts is inspected carefully for possible flaws. ➔

# Business in a Platinum Setting

The glamor metal, once restricted to the jeweler's showcase, is moving into the industrial workshop. One of the chief beneficiaries of the transition is Engelhard Industries, leading fabricator of precious metals.

When a metal moves from the jewelry counter to the factory, there's profit in it for somebody.

Platinum is in the midst of such a move, and the company that stands to gain most is Engelhard Industries, a little known but far-flung business complex headed by Charles W. Engelhard, Jr. (cover). Engelhard Industries is considered the world's leading precious metals fabricator, and Baker & Co., Inc., a subsidiary, the biggest platinum house.

• **Break-Through**—Platinum has been cutting an ever-wider swath in industry over the past two decades. The glamor metal made its first major break-through in the 1930s, when a platinum-rhodium gauze catalyst was used in the manufacture of nitric acid. Today, 75% of the nitric acid made in the U.S. is based on this catalyst.

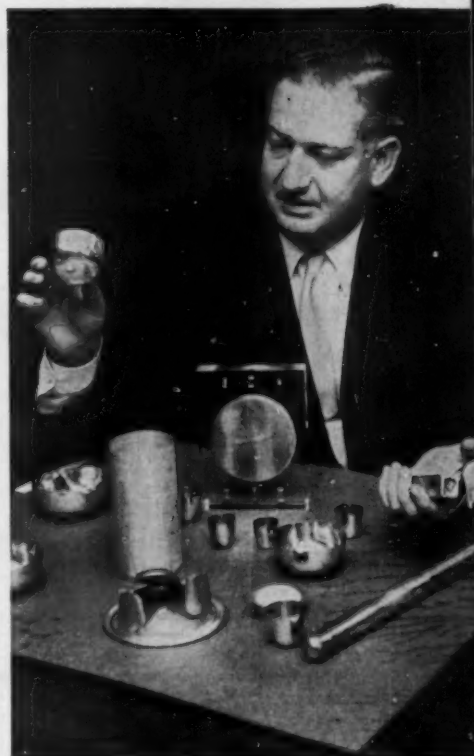
The 1930s also introduced the platinum spinnerette. These nozzles, containing up to 20,000 microscopic holes, spin out synthetic fibers for the textile industry. World War II emphasis on metal development gave the metal another toehold: platinum-tipped spark plugs for the aircraft industry.

Only seven years ago, platinum crashed the petroleum industry. Auto engines began to require higher-grade gasolines, and the oil industry was frantically searching for the gimmick to make high-octane gas possible. The answer was a platinum catalyst. Since 1949, about 200,000 oz. of platinum have gone into this use.

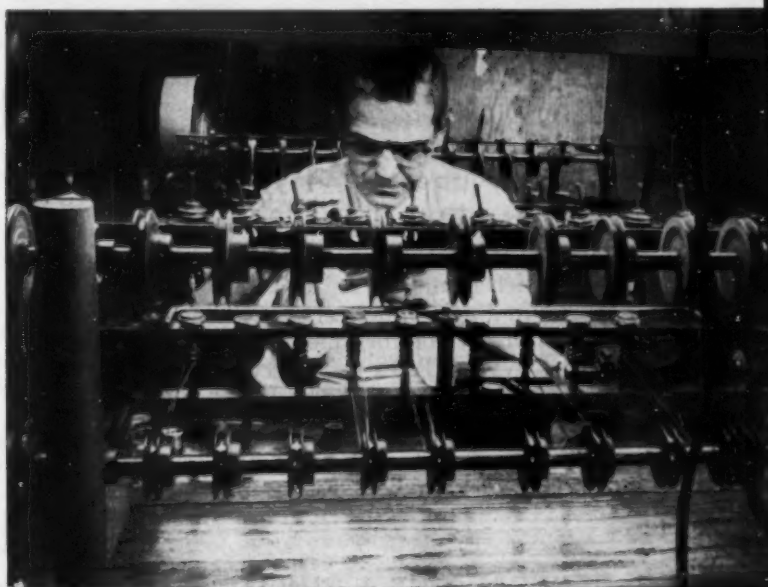
In fact, platinum is so far removed from its traditional symbol-of-luxury role that only 9% of the estimated 270,000 oz. consumed domestically last year went to the jewelry trade.

## I. On the Inside Track

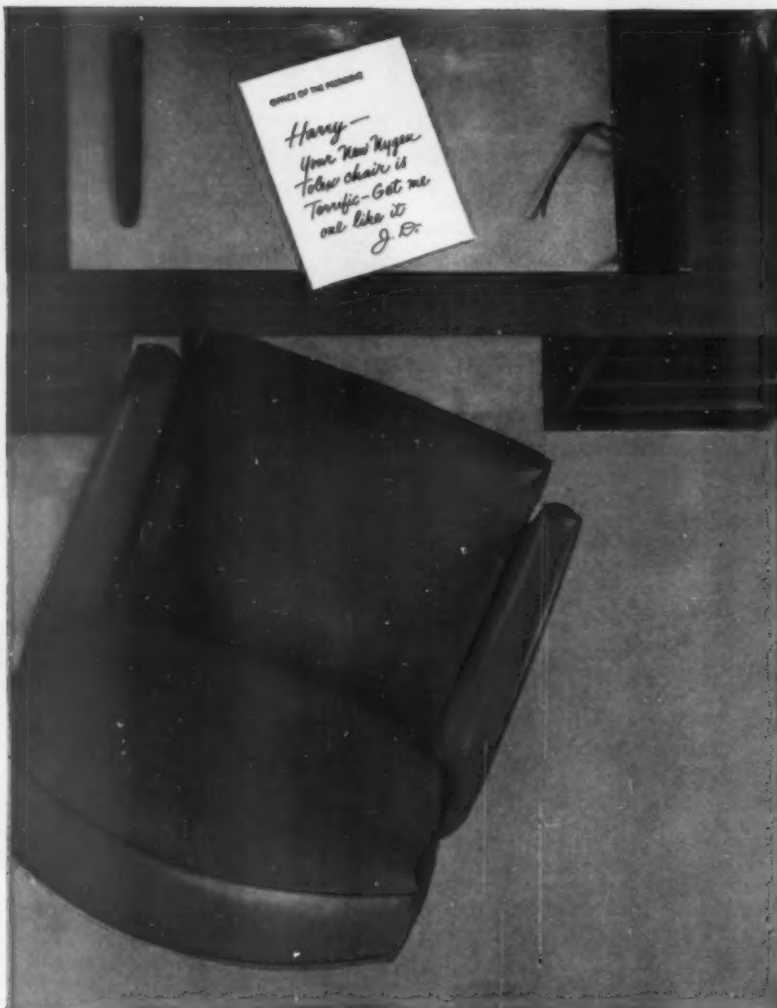
Engelhard Industries is in a strategic spot to take advantage of this move into the factory. Engelhard is a holding company of 14 foreign companies and sales offices and 11 domestic companies. Its total sales volume in 1956 was \$173-million. Its major unit, Baker & Co., had a sales volume of \$53-million, the bulk of which was in platinum. Platinum sales for the entire Engelhard complex were about \$65-million. In addition, Engelhard is the second-largest silver fabricator in the world, trailing



END PRODUCTS from platinum ingot held by Charles Engelhard will include lab ware, mesh, and tubes like those on table.



**DIE-SIZING** machine drills out dies for precise work of drawing platinum wire for electric circuits.



## *New Luxurious* **NYGEN Tolex®**

...the supported vinyl upholstery that stays in business longer

Modern research has now succeeded in capturing all the rich beauty of natural leathers and soft fabrics in a new upholstery material—Nygen Tolex. Exceptionally comfortable, long-wearing and low in cost, Nygen Tolex resists scuffs and stains . . . is easily cleaned with a damp cloth.

Specify Nygen Tolex on all your new office chairs—in any one of the many distinctive patterns and colors now so popular. For samples or the names of office chair manufacturers who use Nygen Tolex write:

**THE GENERAL TIRE & RUBBER CO.**  
TEXTILEATHER DIVISION • Toledo 3, Ohio

*Makers of supported vinyl fabrics for products used in business and homes.*

**GENERAL  
PLASTICS**  
The General Tire  
& Rubber Company

Handy & Harman. Its sales figure in silver was \$55-million last year. And Engelhard Industries is one of the largest gold fabricators in the world, with a sales total of \$32-million in 1956.

Actually, Engelhard Industries is deep in the whole precious metals field, fabricating almost every precious metal product. It vies with Johnson, Matthey & Co. Ltd., London, second-largest platinum house. But it gets stiff competition also from manufacturers of specialty products. Thus it battles with the giants in the chemical, petroleum, and textile fields.

• **Scope**—Although it specializes in platinum (sold at \$98 an oz. this week), Engelhard deals in all the precious metals. It has been instrumental in the development of the platinum-group metals—rhodium, iridium, osmium, palladium, and ruthenium—and gold and silver. Each of these has made inroads into industry, and their progress indicates even greater uses.

• **Products**—Physically, Engelhard Industries, 86% owned by the Engelhard family, is the leather-soft offices on the second floor of 113 Astor Street in Newark. There Charley Engelhard, Jr.—chairman and son of the founder—makes the final decisions for the bloc.

The companies in the group manufacture varied products: The Hanovia Chemical & Mfg. Co. (Newark) turns out liquid gold solutions, gas discharge lamps made of fused quartz, therapeutic devices, and searchlights.

Charles Engelhard, Inc. (Newark) makes heat control apparatus, gas analyzers, and electric furnaces. The Irvington Smelting & Refining Works (Irvington) smelts and refines silver and gold. The American Platinum Works (Newark) turns out silver products—sheet, wire, tubes, and anodes. Companies here and overseas also turn out catalysts, rupture discs (safety valves for chemical equipment), dental equipment, jewelry settings, and electrical contacts.

For the most part, each company operates as a separate entity; at one time, employees in one Engelhard company didn't know they were competing with another Engelhard company. That situation has changed completely. However, the companies are linked financially: The Hanovia company, for instance, owns most of the stock of Baker & Co., which, in turn, owns stock in other companies.

• **Byproduct**—The Industries has no mines of its own. But each major fabricator in the precious metals industry has ties with mining companies. Engelhard obtains a major portion of its platinum concentrates—about 150,000 oz. annually—from International Nickel Co. Inco gets platinum as a byproduct of nickel. Engelhard also is exclusive dealer for Inco's platinum in the U.S. But at



least three-quarters of Engelhard's sales volume is in fabrication.

## II. Late Starter

This new attraction for platinum strikes the layman as a little late. But platinum didn't really get started until the late 1920s. Its first recorded use, outside of coinage, dates back to tea-pots—Russian samovars, to be exact. In the early 1800s, Russian peasants in the Urals found the metal so abundant they made samovars from it.

Platinum didn't find favor as an industrial tool until the 1900s, when it was used to line chemical vessels and as wire for electric lamps. Instead, it was used as trim on fine china—the ultimate in jewelry.

It wasn't until the 1920s, when Inco developed platinum as a byproduct of nickel that users were assured of supplies. The new find also enabled researchers to devote more attention to platinum. The break-throughs in the chemical and textile fields followed within 10 years.

- **Place in Industry**—Researchers found that platinum was highly corrosion resistant, would melt at only high temperatures, had a unique catalytic function, and was almost non-dissipative. They also found that the platinum-group metals had a place in industry.

Today, palladium is used for contact points in telephone switches, and as a hydrogenation catalyst in chemical and pharmaceutical fields.

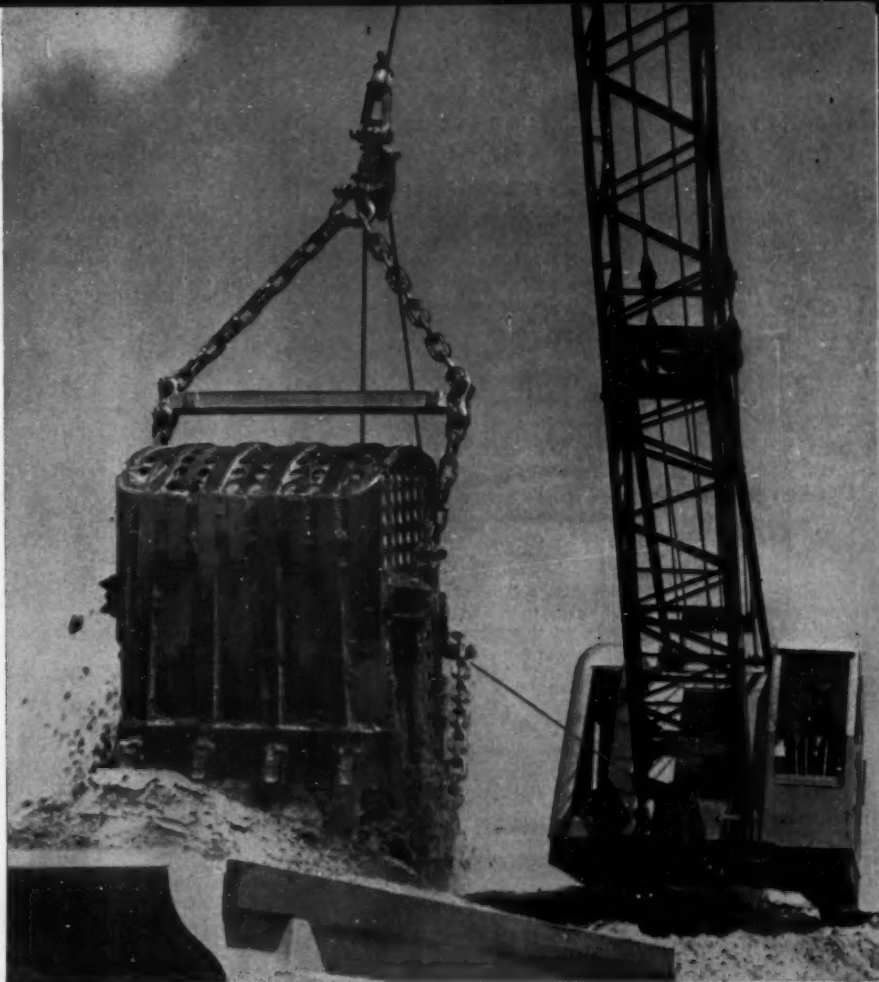
Rhodium has gained favor as a platinum alloy, for its mechanical and catalytic properties, and for electroplating custom jewelry. Rhodium is being discussed as a finish for coaxial cables.

Iridium is used basically as a hardener for platinum. Ruthenium and osmium are used in pen points, and osmium has found a market in the manufacture of vitamins and drugs.

- **Tight Supply**—With this surge of industrial development in the precious metals, the hunt was on for new sources of platinum. But limited world supply is still the metal's No. 1 problem.

Last year, production of all platinum-group metals was about 927,000 oz., of which 590,000 oz. was platinum. Listed world consumption figures of, say, 500,000 oz. actually are misleading since they don't include the huge chunk of scrap platinum, which is refined and fabricated all over again. Even with this scrap, supplies are strained, and the resulting high prices put a damper on the large-scale use of platinum in the factory.

"Prices are not only high, but they fluctuate," says the 40-year-old Engelhard. One reason for the fluctuation is that the Soviet Union (a large producer) uses little platinum for industry. But to gain hard currency, it dumps



## A line on excavating profits

Versatility is an important consideration if you want maximum usage from the excavator you buy. But don't forget to consider, too, the way a machine must perform if you are to get profitable production on each application. Here's how Gar Wood's specialization in  $\frac{3}{4}$  yard excavators results in better performance:

Over the years, Gar Wood has developed performance features that increase output. Independent travel lets the operator hoist or swing while moving. Independent chain crowd puts full engine power into every bite on shovel applications. Direct gear drive and direct manual controls give greater accuracy on precision jobs. And, with Gar Wood you can specify fluid drive for smoothest operation in crane work.

Versatility? Just name the application and Gar Wood excavators can be converted quickly and easily to handle it. But don't forget to also check performance features. When you do you'll find that Gar Wood gives you more to bank on!



Truck Cranes



Tractor Equipment



Gate-Gates



Load-Packers



Hoists & Bodies



Ditchers

## GAR WOOD INDUSTRIES, INC.

Wayne, Michigan • Findlay, Ohio

Plants in Wayne and Ypsilanti, Mich.; Findlay, Ohio; Mattoon, Ill.; Richmond, Calif.

# SAVE THE WALL

WITH *Rest-All*  
STRAIGHT CHAIRS



MODEL  
No. 500

New Rest-All Aluminum Straight Chairs are designed with Flared Rear Legs. This achievement stops Rest-All Chairs at the floor moulding, prevents chair backs from being moved against walls and marring them. Eliminates frequent repainting and replastering. Flared Legs is another reason why Rest-All Chairs are your best seating investment—in beauty, durability, economy, and comfort. Write for details.

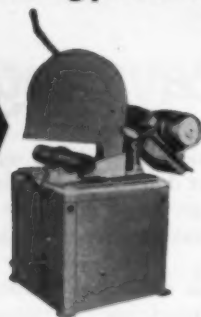


410 N. MERIDIAN RD., YOUNGSTOWN, OHIO

Export Department:  
25 Beaver St., New York 4, N. Y.

## Do you have a cutting problem?

Save Time—  
Money with  
**New BEAVER**  
Speed-Cut  
Abrasive  
Cutoffs!



Cuts almost  
all materials  
in seconds!



**SAFE!**  
**ECONOMICAL!**  
**MODERATELY PRICED!**  
Investigate  
Today!

**Gemar Associates**  
CONSULTING  
**MATERIALS HANDLING**  
ENGINEERS  
over 25 years experience  
GREENWICH, CONNECTICUT

WHEN BUSINESS MEN WANT BUSINESS  
NEWS THEY TURN TO BUSINESS WEEK

the metal on the European market, undercutting the world price structure.

The only answer to this price dilemma, Engelhard believes, is research and new product inventiveness. This has been the guiding principle of Engelhard Industries since its conception, and it has been the follow through of this concept that has prepared Engelhard for the coming role of the precious metals.

## III. Family Tree

Charles Engelhard, Sr., came to the U.S. in 1891 as a representative for a German platinum firm. In short order, he had control of, or a share in, Baker & Co., Irvington Works, Hanovia Co., and APW. In the years before his death in 1950, he accumulated a business empire that stretched from South Africa to Canada.

For the most part, this first bloc of companies stood Engelhard until Inco discovered its nickel lode in the 1920s. Engelhard arranged to be Inco's dealer, and his activities broadened. He purchased control of various foreign companies, and formed overseas units of Baker & Co. and Hanovia.

• **Impetus**—The new Inco supplies also gave Engelhard a chance to drum research. "The things you sell today won't be in demand tomorrow," he would say. He started a small-scale research force in the early 1930s. Around this time, Baker, together with du Pont, came up with the platinum-rhodium gauze catalyst that revolutionized the manufacture of nitric acid.

Gradually, new product inventiveness moved Engelhard near the top of the field. In the 1940s, Engelhard, Sr., went on another spending spree. He purchased D. E. Makepeace Co., of Attleboro, Mass., which produces gold and silver sheet, tube, and wire; Amersil Co., Inc., of Hillside, N. J., which makes industrial applications of fused quartz and silica; National Electric Instrument Co., Inc., Elmhurst, N. Y., makers of medical instruments; and Union Plate & Wire Co., which has since merged with Makepeace.

• **Framework**—Engelhard's framework was the precious metals field, but, seemingly, he fit his own pieces into that framework. Company officials who worked with him explain that to Engelhard, Sr., each investment was in some way tied to the precious metals industry. But the incongruity still persists.

• **Pattern Change**—The death of Engelhard, Sr., brought changes within the Engelhard industry. He left a far-flung complex that was responsible only to him. One company official recalls, "It was a one-man show."

By the time he died, the complex had got too big for one man. And young Engelhard set out to change

some of the old patterns. Some company officials were nervous about the results. "But," says one, "Charley put the company back on the right track."

• **New Blood**—Engelhard's first job was to shore up management. He set up an executive committee, much like any board of directors, with himself chairman of the board. For president, he imported Gordon Richdale, a Transvaal mining specialist formerly with the Bank of England. Richdale is president of all the foreign and domestic companies, but one. The exception is Azoplate Corp., annexed in 1953, which makes printing plates. Azoplate's original president, F. William Von Meister, retains that title.

Engelhard also hand-picked several men from within the business complex and from other industries. S. Roy Bryant, from a London unit, became production coordinator. Bryant's job is to make sure all production techniques within the complex are standard.

Larry Hoguet, a boyhood friend, with long-time banking experience, was hired as treasurer of the domestic companies. DeWitt Alexandre became head of the East Newark Realty Center, an industrial realty center owned by Engelhard, partly for revenue, partly for a space investment for the future.

## IV. Old Concept

Engelhard, Jr., did not change the concept of the company. That's still the same," he says. "We're specialists in specialty metals—we'll handle anything that's small in volume, but high in value. But our nub will be platinum."

Nor has Engelhard any thought of lopping off companies that don't seem to fit into the above category. Thus, he's keeping the South African company, which is a timberland outfit producing forest products, an Hanovia unit—which turns out Engelhard Industries sole consumer product, the Hanovia Health Lamp—and an Australian company, Clover & Goode Base Metals Pty. Ltd. Melbourne, which produces type metal.

These "extra" companies contribute about \$19-million in sales, which is the main reason Engelhard is loathe to cut them out.

• **One Company**—In his reign, Engelhard has directed the purchase of five companies, formed others in Rome and Bogota (Colombia) and set up sales offices in Paris, Tokyo, and Copenhagen.

At the same time, however, he has tried to integrate the companies.

"The aim is to have one company," says one official. But the financing set-up is so complicated now, it's hard to see when that will be." **END**



TENNESSEE LAKE COUNTRY

## Reflecting a new peak in air travel



The Fairchild F-27 propjetliner represents a major advance in regional air transport . . . the attainment of new peaks in performance, passenger comfort, all-around economy.

**Performance:** 280 mph cruising, superb small-field characteristics.

**Passenger comfort:** spacious cabin, pressurized and air-conditioned; the F-27 permits unobstructed views from the panoramic windows.

**Versatility:** the F-27 in its executive transport version matches the features of its airline sister ship — is unmatched by any corporation airplane in its class, with range to 2,250 miles.

**Economy:** — pays its way on hops of less than 100 miles. It's inexpensive to run, to maintain, to buy:

Address inquiries to: R. James Pfeiffer, Executive Director of Customer Relations, Fairchild Engine and Airplane Corp., Hagerstown 15, Md.

**FAIRCHILD**  
**F-27** *Friendship*



THE FINEST AIRCRAFT FOR AIRLINES.

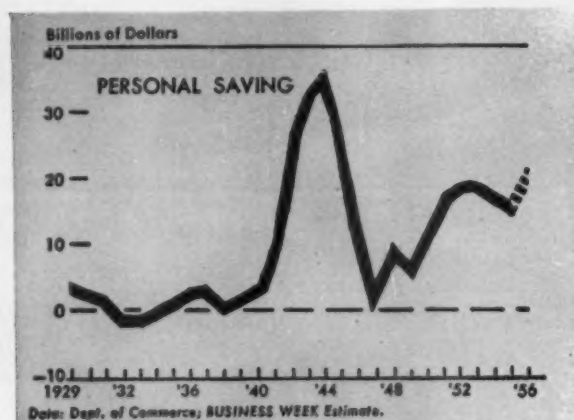
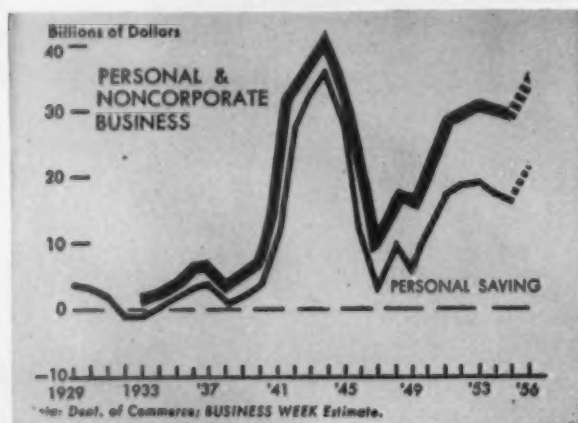
CORPORATIONS AND MILITARY SERVICES.



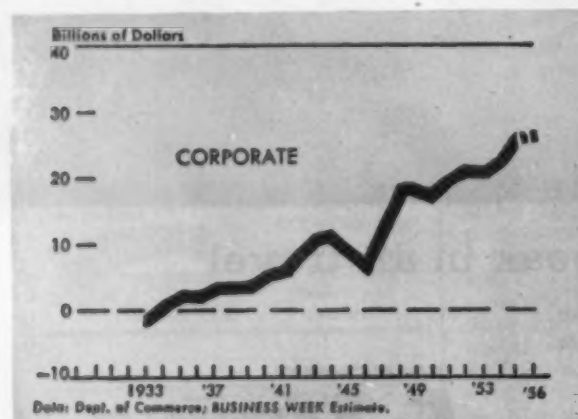
# What Saving Is:

- In defining saving, there's no easy way out. One good and consistent approach is to measure saving as it fits into gross national product—as illustrated in these charts.

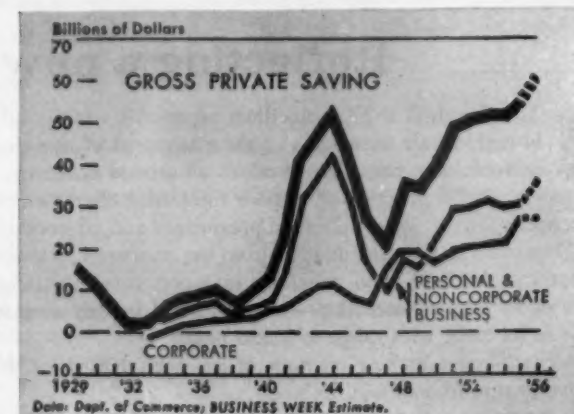
To most people, saving is what we all do when we hold part of our income back from current consumption—and plow it instead into a savings account, a life insurance policy, an old mattress (or even, paradoxical as it seems, into repaying debts). This is a definition of personal saving—and here's how it has fluctuated since 1929 (right) . . .



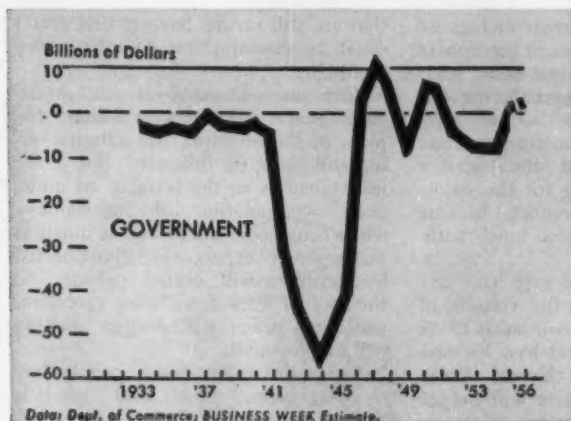
But that isn't all the saving individuals do. Some of them own houses and farms and medical practices and other unincorporated businesses. They save to cover the depreciation of their capital goods—their barns, office equipment, X-ray machines, real estate, including allowances for capital consumption, total saving of this sort has been tracing this course (left) . . .



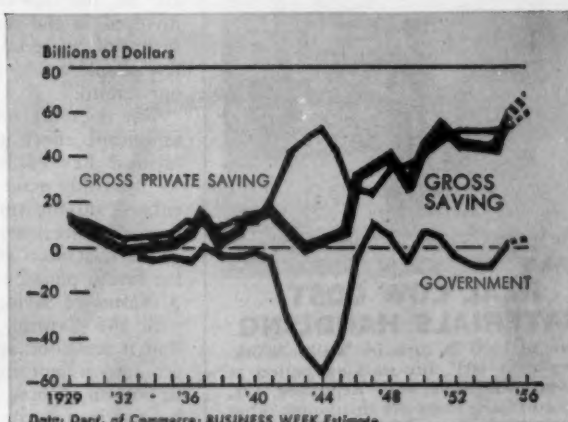
Business corporations also save—by hanging onto some of the after-tax profits that might otherwise go into dividends. By adding in corporate saving in the form of depreciation allowances, you get gross corporate savings, which have behaved like this (left) . . .



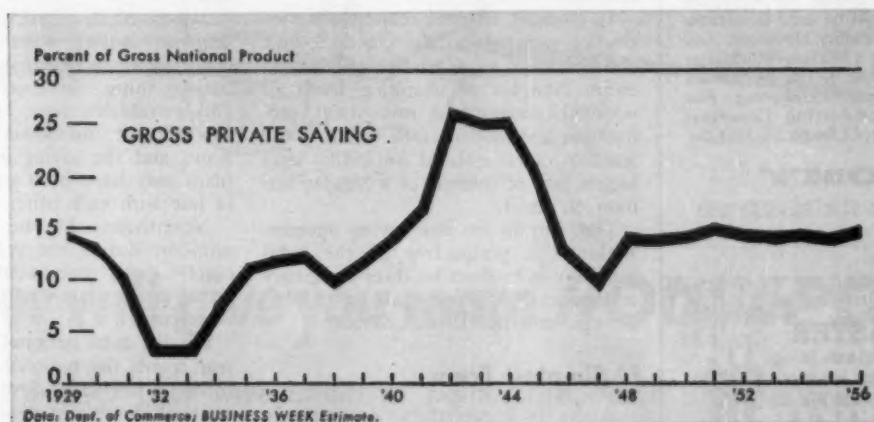
Adding up the total saving by individuals and businesses (corporate and noncorporate) gives a figure for gross private saving. This has wavered from practically zero to more than \$60-billion in the past quarter century (right) . . .



But that's not all. Government (federal, state, and local) also saves—or dissaves. When government pays less to the rest of the economy than it collects, it saves. When it pays more than comes in, it dissaves. This is the way it looks (left) . . .



Then, lump government saving with gross private saving. The result: total gross saving for the U.S. economy. This figure is strikingly different from gross private saving by itself—for instance, notice how the two types of saving tore off on opposite tacks during the war and early postwar years (right) . . .



Is private saving reasonably constant as a proportion of national income? Far from it—as a percentage of GNP, gross private saving almost vanished at the depression's worst, then zoomed up during World War II. Recently it has been steady, at about 15% of GNP.

## Hero, Villain, or Specter?

You hear a lot these days about the nation's rate of saving, and most of it sounds pretty confusing.

People are saving too much of their income, marketers will tell you—but they don't necessarily mean that consumers are stashing away too much money in the bank or in E bonds. People aren't saving enough, you'll hear from bankers and bond dealers who are struggling with a shortage of investment funds.

The sorry truth is that saving is perhaps the toughest economic concept to define, appraise, or understand. To

different people at different times—or even at the same time—saving seems to be playing a bewildering variety of roles on the economic stage:

**Hero**—the epitome of personal and social virtue, creator of capital, stalwart defender against inflation.

**Villain**—the Scrooge-like enemy of the people, strangler of demand, and cause of depressions and stagnation.

**Twin Brother**—to another leading actor—investment.

**Ghost**—whose dimensions are shadowy but which can prophesy and influence the future.

At the moment, saving is mostly seen as hero. Businessmen, bankers, and government officials argue that an increase in saving can ward off inflation, provide funds needed to build the extra capital equipment that will yield a step-up in real output.

The way to get more saving, some people argue, is to raise the rate of interest. They heartily approve the Federal Reserve's recent action to let banks pay as much as 3% interest on savings accounts, and the quick adoption of that rate by many banks.

• **Sacrifice**—Those who favor higher in-



## REAL LOW COST MATERIALS HANDLING

A pair of 1500 lb. capacity Walkie-Worklifters with 108" lift stacking pallets at Minneapolis Honeywell Regulator Co., Chicago Plant. There are thirty-nine other fork or platform models with lifts of 58" to 120" and capacities of 1000 lbs. to 2000 lbs. Priced from \$1250.00 to \$2500.00. Walkie-Worklifters can be used in narrow aisles and on light capacity elevators. Any employee can operate a Walkie-Worklifter without special training. Write for details or see Sweets Plant Engineering File 1A/EC. Economy Engineering Company, 4537 West Lake Street, Chicago 24, Illinois.

**ECONOMY**  
**ENGINEERING**

lost keys waste money!

PROTECT THEM WITH SAFE, SECURE, SYSTEMATIZED

**Ke-MASTER**

In sizes to fit all needs. For complete information, write today!

CUSHMAN & DENISON MFG. CO.  
625 Eighth Ave., N. Y. 10, N. Y.

**+ INDUSTRY'S BIG PLUS +**

+ Skilled Labor  
+ Ideal Plant Sites  
+ Modern Industrial Parks

**=**

**RHODE ISLAND**  
INDUSTRY'S IDEAL STATE

R. I. Dev. Coun., Rm. 521, State House, Prov., R. I.

### PROBLEM

A Manufacturers representative wanted additional accounts recently

### SOLUTION

He ran this ad in the "clues" Section (Classified Advertising)

Dallas Mfg. Agent calling on industrial accounts desires additional line. RA-0000, Business Week.

### RESULT—32 REPLIES

He got what he wanted and so can you through the "clues" section of BUSINESS WEEK. For information just drop us a line.

terest rates to call forth more savings are following one of the hoariest precepts of economics. "Human nature being what it is," wrote Alfred Marshall, the last giant of classical theory, "we are justified in speaking of the interest on capital as the reward of the sacrifice involved in the waiting for the enjoyment of material resources, because few people would not save much without reward."

But does the interest rate have any significant effect upon the volume of savings? Few modern economists think so. Probably none would base his case entirely on the simple classical notion that a higher interest rate will induce greater sacrifice of present pleasures for future pleasures.

• **Nature of Saving**—The main trouble with the classical theory of saving is that it sees total saving in the national economy as nothing more than a multiplication of how an individual would behave in an economy in which total output and income are assumed to be constant.

In contrast, modern economic theory studies saving from the standpoint of the economy as a whole, within the entire complex of changing levels of national consumption, investment, production, and income—rather than as the reaction of an isolated individual to a higher rate of interest or a Sunday sermon on thrift.

One way to see how saving operates within the perspective of the total economy is to describe three imaginary economies—which we shall call Alpha, Omega, and the United States.

### I. Simplest Form

Alpha is a capitalistic economy in which neither the government—by taxes or by spending—nor foreign trade is a factor. All the saving in Alpha is done by private businesses and individuals. It includes depreciation, undistributed profits that are to be used for retirement of debts or for expansion, the money that individuals put aside out of their wages and salaries instead of spending it immediately on beer or shoes, and the money that individuals use to pay debts or buy insurance—anything these firms and individuals do that withdraws less of the nation's total of goods and services than they put into it.

This saving activity of Alpha must, in a given period, be offset by the maintenance or increase of the nation's capital stock or by consumption by other individuals in excess of what they contribute to Alpha's gross national product. This excess can be eaten up by drawing down the funds acquired through past saving, by mortgaging future incomes, or by gifts or other transfers from the individuals or firms

that are still saving. Savings that aren't offset by consumption go into investment.

• **Consumer Demand**—If the investment in the current year follows the plans of the investors, the nation's saving will cause no difficulty. But if the investment is in the form of an undesired accumulation of inventories—when consumers fail to buy as much as businessmen expect—the disappointed businessmen will curtail output. As they try to work down their excess inventories, prices will decline, and so will employment.

If on the other hand, people buy more consumer goods and materials than expected, Alpha's businessmen will happily increase production if they can. It will be easier for them to do this if there are large amounts of unemployed resources and workers. As a result of this effort to expand output, prices are likely to rise either a little or a great deal—depending on how difficult it is actually to expand production.

When Alpha closes the books on a year—no matter whether production and employment grew or shrank—a curious thing will appear. The saving and investment have been performed by different individuals and business firms, and the saving and investment plans may have been considerably out of line with each other.

Nevertheless, for the entire Alphese economy during the year, savings will exactly equal investment. In fact, national saving always equals national investment.

For the total national savings in any year equals the national income minus consumption expenditures. And total national investment equals total output minus the production of goods and services for current consumption. Since total output equals total income, national saving equals national investment.

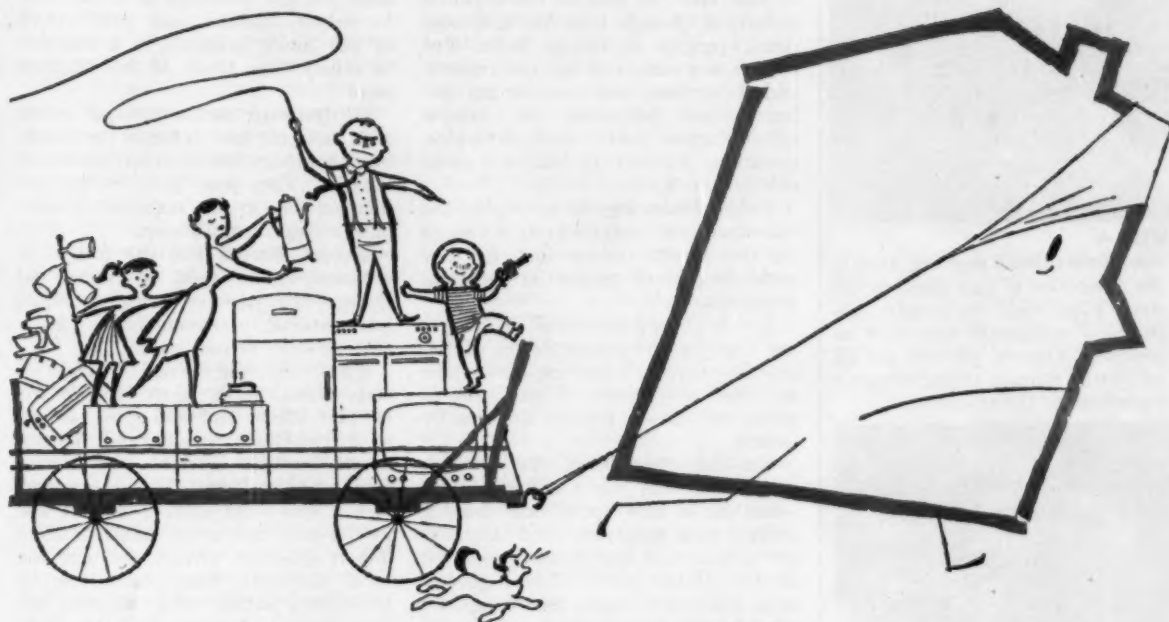
• **Six of One . . .**—This axiom is by no means a mere definitional trick. It has real operational significance.

The example of Alpha shows how excess planned saving would lead to an unwanted and unplanned increase in investment—through inventory accumulation. Later, the cutback in production would lead to unemployment and declining incomes—which would force a downward adjustment also in saving, no matter what the society's original plans.

Or shortage of planned saving (which might also be called an unexpected boost in consumption) could result in an unwanted curb on investment—leading to insufficient inventories, insufficient plant and equipment, depletion of the existing stock of capital. But this would make businessmen exuberant, and, as they expanded output to meet



Besides your wiring . . . pipes and fixtures inside the house and gutters, leaders and flashings outside are most desirable, most durable when made of copper and its alloys.



## Copper will give you more **HOUSEPOWER** Trade Mark

*. . . protect your investment in home and home appliances!*

If the TV goes dim when the furnace goes on . . . if the toaster takes longer to warm . . . if the vacuum cleaner's suction grows suddenly weak, *your house is showing a need for more COPPER WIRE!*

Overloading of circuits is common. Each new electric appliance you buy adds to the load. Electricity is flowing into our homes at a rapidly rising rate.

Let's make sure there's enough copper wire,

enough circuits, to give us full "HOUSEPOWER."

A small investment in additional circuits allows you the full use of your present appliances . . . means you aren't limited in buying other appliances in future.

Every dollar you invest in this added convenience, adds to the value of your property. Why not consult your local electrical contractor for a check-up or an estimate?

*Live better electrically . . . with COPPER!*

## COPPER & BRASS

RESEARCH ASSOCIATION

420 Lexington Avenue, New York 17

COPPER OR ITS ALLOYS PROVIDE THESE ADVANTAGES: Best conductor of electricity commercially available • Does not rust . . . high corrosion resistance • Best heat transfer agent of all commercial metals • Easy to machine, form, draw, stamp, polish, plate, etc. • Welds readily . . . excellent for soldering and brazing

**Ingenuity pays off**

## PAPER BAGS SAVING MONEY IN MANY INDUSTRIES



### STEEL—

Sometimes called a shot bag. Used in the production of high grade carbon steel. Filled with flux powder consisting of manganese and other ingredients. Thrown, contents and all, into a steel furnace, adding necessary ingredients to the molten steel.



### MAGAZINES—

Comic books are sent by printer in bags instead of paper-wrapped packages. Saves time, handling.



### NAILS and SIDING—

Perfect "piggy-back" package. Small bags, right, are first filled with face nails, then stapled closed. Next, 37 3" x 12" strips of asbestos-cement siding are inserted in long, narrow bag. One filled bag of nails is placed on top and complete unit stapled.

VERSATILE PAPER BAGS can save money, provide more efficient packaging, handling, for your product. SEND FOR USEFUL BOOKLET CP-9.



Commercial Packaging  
**UNION BAG-  
CAMP PAPER  
CORPORATION**  
233 Broadway, New York 7, N. Y.

rising demand and rising prices, there would be an increase in national income—and in saving. Whether the news of the year is good or bad, saving winds up equal to investment.

## II. Government's Hand

Now take the case of the mythical country of Omega. Like Alpha, Omega doesn't engage in foreign trade. But Omega is a nation of big government, and its citizens and corporations pay heavy taxes. Sometimes the Omegan administration runs a budget surplus, sometimes a deficit—its budget is never exactly in balance.

- **Public Financing**—As in Alpha, the individuals and business firms of Omega do considerable saving—that is, they withhold part of current income from consumption.

But in Omega, part or all of the saving done by the private sector of the economy may be wiped out by taxation or offset by government purchases of goods and services that are financed by deficits.

On the other hand, the Omegan government may run a budget surplus—that is, it may spend less than it collects from taxpayers. And this budget surplus will free resources for use by the private sector. These government-liberated resources are savings and must be offset by consumption or investment by individuals and business firms.

- **Surplus or Deficit**—Depending on the state of business in the private sector of Omegan economy, this government surplus or deficit may do quite different things:

- If planned saving is lagging behind planned investment and the economy is booming, the government's surplus will liberate resources and will help damp down inflationary pressures.

- But if planned saving exceeds planned investment, and unwanted inventories are accumulating and the economy is sagging, the government surplus will aggravate the slump by further reducing demand.

- Or, the other way around, if the government runs a deficit, which subtracts from the economy's total saving, it may stimulate economic expansion and higher employment.

- Or it may put excessive pressure on resources and manpower at a time when they are short, thereby promoting inflation.

## III. Adding Foreign Trade

The third economy, which we have chosen to call the United States, is essentially like that of Omega except for one thing: It is involved in foreign trade.

So now, in addition to domestic consumption and investment, there is a new offset to saving by individuals, businesses, and government: the net export of goods and services during the period covered.

Net exports will act upon the economy exactly like a deficit in the government budget—primarily as a stimulus to output, income, and employment in bad times, primarily as a stimulus to inflation in times of full employment.

Contrariwise, net imports of goods and services set domestic resources free for production of other goods and services. They may serve to restrain inflation—or, if the economy is slipping, to aggravate a slump.

- **Recent Record**—For the real U.S. economy—as for those of Alpha and Omega—total national saving will equal total national investment for any given year—or series of past years.

Thus, for the period 1929-1953, corporations made gross investments of \$256-billion and had gross savings of \$228-billion; persons and noncorporate business invested \$229-billion, saved \$415-billion; the government had a heavy net deficit, mainly due to the war, and hence dissaved \$160-billion (positive savings through the social insurance funds amounting to \$51-billion partially offset negative savings of \$212-billion) and the U.S. made a net investment in foreign countries that amounted to \$13-billion.

Allowing for a statistical discrepancy of \$14-billion (on the saving side), total savings for the period came to \$498-billion; total investment also came to \$498-billion. The equality between savings and investment held, of course, only for the total economy, not for any given economic unit or sector within the economy.

On balance, persons and noncorporate business were the big suppliers of funds to the rest of the economy (\$187-billion), while government (\$160-billion), corporations (\$27-billion), and the rest of the world (\$13-billion) were the big consumers of other people's savings.

## IV. What Figures Mean

The above measurements—like those in the charts (pages 96 and 97) follow the definitions of saving and investment used by the Dept. of Commerce in calculating the gross national product.

There are, however, many other ways of defining and measuring savings. Though the various methods are theoretically reconcilable, they produce vastly different numerical results. Most businessmen—and quite a few economists—find this very confusing. For instance,

gross savings of individuals, as measured by the Dept. of Commerce, totaled \$31.5-billion, \$30.5-billion, and \$30.1-billion in 1953, 1954, and 1955. But the Securities & Exchange Commission's figures for gross saving of individuals (which you might think would be the same) were \$52.8-billion, \$55-billion, and \$61.2-billion in the same three years.

It turns out that the Commerce gross individual saving figures include several items that aren't included in SEC's definition of gross saving: unincorporated business and farm items such as plant and equipment, changes in net receivables, changes in inventories, and depreciation on homes. At the same time, the SEC figures include saving through government insurance and consumer durables, while Commerce gross saving figures do not include these items.

In addition, the Commerce and SEC figures are calculated in quite different ways—Commerce takes its saving figures mainly from the national income accounts (in which saving is a residual of income minus consumption); SEC calculates saving from changes in the assets and liabilities of individuals—that is, by measuring the changes in their balance sheets or net worth from one period to the next.

• **Perplexing**—A host of other problems assail the statistician who's trying to measure savings:

- Shall I include realized and unrealized capital gains and losses?

- Shall I count expenditure for housing as consumption or saving? If that's saving, how about expenditure for cars or dish washers?

- Shall I treat all government expenditure as consumption? What about government dams? What about atomic energy centers, aircraft carriers, tanks?

- What system of depreciation should I use? Should I measure saving for depreciation in present values, in constant values, in original values, or what?

- **Wild Deck**—There never was a deck with so many wild cards in it as the deck of savings statistics.

In his monumental *Study of Savings in the United States* (BW—Mar. 1'55, p130), Raymond Goldsmith offers 11 national savings estimates for the entire period, 1897 to 1949. According to his "social accounting concept; narrow," national savings in this period amounted to \$245-billion; according to his "cash flow concept; standard," the total was \$931-billion.

## V. Everyday Effect

Despite its statistical and theoretical complexities, saving is not an academic problem that can just as well be ig-

nored. A glance at any day's newspaper shows just how hot a problem it is for banks, life insurance companies, businesses of all kinds, and the U.S. government.

What, then, is the current saving picture? And what, if anything, can be done about it?

- **Uptrend**—Actually, personal savings have been rising at a pretty good clip. In the first quarter of 1955, personal savings (by Commerce reckoning) were running at an annual rate of \$13.9-billion; right now, they are running somewhat above \$22-billion—a rise of more than 50%.

Gross national savings have also risen in the same period—though not so sharply as personal savings. In the first quarter of 1955, gross national savings were running at an annual rate of \$54.3-billion; in the third quarter of 1956, they had reached a rate of \$66.8-billion—a 23% increase. By now, they have probably risen to an annual rate of almost \$70-billion. That's based on gross private domestic investment plus net foreign investment.

- **Still Short**—Nevertheless, we are not saving enough. Or, to put it more precisely, our saving plans are too low. Given American industry's capital spending plans for 1957 of \$40.2-billion (BW—Dec. 15'56, p31), the funds that Americans are willing to set aside for savings most certainly are inadequate.

Of course, we really don't know exactly what Americans plan to save. (We could make some estimates from their commitments to pay life insurance premiums, repay mortgage and installment debt, and from their past saving habits at changing levels of income, production, and prices.) But there is perfectly plain proof that the planned saving figure, whatever it is, has been too low: Prices have been rising.

This price rise means that Americans have been trying to invest and consume too much—which is the same thing as saying that they have been trying to save too little.

Of course, if the investment and consumption actually do take place, the saving also takes place—since saving equals investment. But the extra amount of saving (which people were unwilling to make by voluntarily reducing their real consumption) simply represents higher prices. So does part of the extra investment and consumption. And as long as the nation plans to save less than it intends to invest (while we are at or near full employment), prices will rise.

- **Remedy Wanted**—What can be done about it? Can we lick inflation by making people save more? What will make people save more? Can credit controls, boosting the interest rate,

make saving more attractive? Obviously, people would save more if their incomes were boosted. Raymond Goldsmith's study of the determinants of saving over a period of 53 years shows that short-period swings in income accounted for more than two-thirds of all variations in saving—both personal and national.

In the short run, consumption holds rather steady. So, if income goes up sharply, most of the change takes place in savings. Over a longer period of time, however, consumption will adjust itself to higher rates of income—so the long-time trend of saving is steady. Personal saving usually amounts to one-eighth of income, and national saving to one-seventh of income. But to raise savings by sharply raising incomes would obviously be inflationary, not deflationary.

- **Interest Rate No Help**—Besides changes in income, Goldsmith found only three other factors that appeared to have any significant effect upon saving: (1) previous peak income or consumption, (2) holdings of liquid assets, and (3) the ratio between employment and the normal labor force. Changes in the rate of interest were not in the running.

It's not too hard to see why this is true. Much personal saving—to pay debts, insurance premiums, pension contributions, and so on—is on a contractual basis; depreciation is governed by accounting rules; and most families would find it extremely difficult to change their consumption outlays significantly—merely to take advantage of a slightly higher rate of interest on savings.

That's why it seems a waste of time to try to use policy to operate on savings directly as a means of checking inflation.

- **Opposite Tack**—The way to get at the problem of insufficient savings is the other way round—by checking excessive planned investment or consumption or both.

One way to do this would be to make money not merely dear but really tight—so tight that investment and consumption plans were seriously affected. Another would be to reduce government spending, boost taxes, run a bigger government surplus. A third way would be to impose direct controls both upon investment and upon consumption.

Any of these approaches—with the boom flattening out already, and some sectors showing a tendency to sag—would be extremely unpopular—and risky. If something went wrong, any of them could produce recession or depression. And that would certainly check inflation—and, incidentally, do it while reducing, rather than increasing, actual saving. **END**





## Coal eyes the future

...and here's how banks help.

There's more to a chunk of coal than meets the eye.

Stored inside this most basic of fuels is the age-old energy of the sun. And now, coal that once served man as fuel alone goes into everything from lead pencils to linoleum—DDT to TNT.

To unlock the riches of coal, many people work together. Men who mine the coal. Manufacturers who build machines and safety devices that increase coal production. Research men who, day by day, develop new coal by-prod-

ucts. And there are bankers too.

### COAL CASH

Bank loans provide ready cash for mining and delivering the coal that powers industry, generates our electricity, and keeps the home fires burning. Bank financing helps export millions of tons of coal to nations all over the world. And bank loans back the conversion of coal into countless products.

### YOU WIN

In the coal industry, as in almost all business, large or small, bankers are at

work. Their services and resources are available wherever they can help most to stimulate growth and productivity.

The Chase Manhattan Bank of New York, leading lender to U.S. industry, is proud of the contribution commercial banks are making to the well-being of the entire nation.

THE  
**CHASE  
MANHATTAN  
BANK**

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

# INTERNATIONAL OUTLOOK

BUSINESS WEEK

FEB. 2, 1957



The Eisenhower Doctrine now will sail through Congress easily.

But to assure passage the Administration was forced this week to make two important concessions. It agreed to (1) a full-dress Senate investigation of U. S. Middle East policy since 1946; and (2) a system whereby it must report to Congress 15 days in advance of committing doctrine funds to Middle East aid projects.

State Secy. Dulles will be fighting for his political life during the Senate investigation. In theory, it will be bipartisan—covering the development of U. S. Middle Eastern policy under Pres. Truman as well as under Pres. Eisenhower. But public interest and Democratic fire will center on the U. S. role in the current crisis.

Dulles will have two strong defenses to fall back upon—the complexity of the Middle East situation and the backing of Eisenhower.

But it will be events in the Middle East during coming weeks that will determine how badly Dulles gets hurt politically. If progress is made toward settlements of the Suez and Arab-Israeli disputes, the Democratic attack will lose much of its force. If there are new flare-ups, Dulles might become as much a political liability to the Administration as Dean Acheson was in the latter months of Truman's rule.

—•—

This week's visit of King Saud of Saudi Arabia is meant to smooth the way for Middle East settlements. If it does that, it will be well worth the fuss between Washington and New York's Mayor Wagner.

Note, however, that it's Egypt's Nasser and his Communist advisers, not King Saud, who have been at the bottom of the trouble in the Middle East. What counts now is whether Nasser is prepared to accept the proposal of U. N. Secy. Gen. Hammarskjöld that the U. N.'s Emergency Force should stand guard at Gaza and the Gulf of Aqaba.

The U. S. is throwing its full weight behind this proposal. So are the other Western powers. And there's little doubt that Israel will finally accept.

If Nasser does, also, you can rate the Middle East outlook as a little brighter than it has been recently.

—•—

At midweek, the U. S.-British defense talks were going well. Although details were lacking, it was clear that a successful outcome would mean that Britain will get more of its guided missiles from the U. S., and we will get the benefit of more of their research and development.

There is even a possibility that some British-developed missiles may be produced here, both for Britain's use and ours. And at least part of the U. S. missiles supplied to the British are sure to be financed through military aid funds. (There is a special aid category for procurement of advanced weapons for NATO allies.)

The current exchanges are just part of the process by which Britain is trying to adjust to a two-power world. This adjustment involves a historic shift in British strategic thinking—one that's being accelerated by the Suez failure and by the rapid rate of missile developments.

As the British add things up, these are the cold facts:

- No nation, except the U. S. and the U. S. S. R., can engage in the atomic weapons race without bankrupting itself economically.

# INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

FEB. 2, 1957

• Britain must concentrate its defense effort on making the islands as secure as possible against nuclear attack. Overseas commitments, whether in Germany or Hong Kong, must be subordinated to this basic consideration.

—•—

Treasury Secy. Humphrey threw a controversial proposal into the foreign aid hopper this week. To the Fairless Committee, which is studying long-term foreign aid policy, Humphrey suggested that (1) all military assistance, including economic support for military programs, be transferred to the U. S. Defense Dept.; and (2) all economic development aid be extended in the form of loans, financed out of a revolving loan fund.

Humphrey's proposal encountered immediate opposition from foreign aid officials in other parts of the government. They had three criticisms:

- The Defense Dept. isn't competent to deal with the economic problems arising from our allies' military programs.
- A fixed, revolving loan fund would set an inflexible ceiling on economic aid. It would do this at a time when the rapidly changing situation abroad demands greater and greater flexibility—and probably more money.
- Large amounts of grant aid still are required to purchase political quid pro quos around the world.

In the end, the Administration probably will veto Humphrey's suggestion. Even so, it is bound to strengthen the hand of congressmen who are seeking ways to pare the foreign aid budget.

—•—

With the Administration's oil-for-Europe program bogging down (page 29), Western Europe's industry may be in for a nasty month or two.

So far, the old shortage has interfered little with production. But oil stocks are shrinking fast. And it looks as though the February and March supplies of fuel oil will drop 30% to 40% below normal, instead of 20% as expected earlier.

Britain has enough to last through February on the present rations. But March could bring a severe production—and unemployment—crisis.

—•—

In Argentina, Gen. Aramburu has reshuffled his cabinet by appointing five new ministers. The shake-up—the second since he became provisional president in December 1955—aims to:

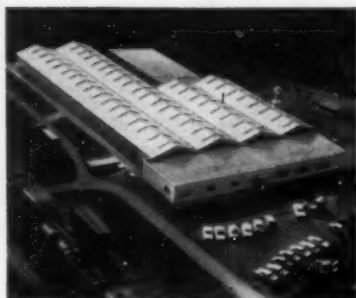
- Weaken ultranationalist and left-wing elements in Aramburu's shaky government.
- Speed up the country's battle with inflation and the after effects of Peron's dictatorship.

Biggest cabinet switch is the appointment of Roberto Verrier to replace Eugenio Blanco as Minister of Finance. Blanco has tended to favor state controls over industry and utilities—and only halfheartedly encouraged much-needed foreign capital. Verrier openly dislikes state controls, wants to invite in U. S. and foreign investors. His policies are likely to stick close to the program top-economist Raul Prebisch formulated for Argentina's recovery—strong agriculture and the welcome mat for foreign business interests.





This big Armco Steel Building houses processing, manufacturing, assembling and shipping facilities.



Warehouse and office requirements are ideally met by this Armco Steel Building.



Exterior and interior treatment were easily handled in this Armco Steel office building.



For a weather-tight, fire-resistant shed, an Armco Steel Building is a low-cost answer.

## GET HIGH QUALITY AT LOWER COST... SPECIFY AN ARMCO STEEL BUILDING

Modern factory-produced Armco Steel Buildings in more than 5,000 different sizes provide the custom-tailored buildings you need at a big saving. They are attractive, weather-tight, fire-resistant, require minimum maintenance. For details, mail coupon below.

You can meet a wide range of industrial and commercial requirements at low cost with prefabricated Armco Steel Buildings. They are available in thousands of sizes and shapes up to 100,000 sq. ft. or more. Clear-span widths up to 100 feet.

Construction is fast—and at a saving. Factory-made panels come ready for easy, economical assembly. Architectural treatment can be applied outside and decorative treatment inside. Standard insulation materials can be used where desired.

For specific information on how Armco Steel Buildings can meet your needs, just mail this coupon. Armco Drainage & Metal Products, Inc., Middletown, Ohio. Subsidiary of Armco Steel Corporation. In Canada: Armco Drainage & Metal Products of Canada, Ltd., Guelph, Ontario.

**ARMCO DRAINAGE & METAL PRODUCTS, INC.**  
467-A Curtis Street, Middletown, Ohio

Send me complete information about Armco Steel Buildings for the following use:

Size \_\_\_\_\_

Name \_\_\_\_\_

Company \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

**ARMCO STEEL BUILDINGS**





*Packard Clipper, Supercharged for '57*

Here's where the best of two automotive concepts meet...The command performance of Studebaker-Packard's built-in supercharger for extra power when you need it...Twin Traction with drive power in both rear wheels . . . combined with the luxury, comfort and elegance you find in the finest car. This is the new Packard Clipper and the new Packard Clipper station wagon. Drive them at your Studebaker-Packard dealer's today.



**Studebaker-Packard**  
CORPORATION

*Where pride of Workmanship comes first.!*

# In Washington

. . .

## Collision Insurance Probe

### Aids Misclassified Autoists

The Senate Commerce subcommittee that gave Detroit a rough time last year over auto marketing practices is now getting set to start an investigation of insurance subsidiaries of automobile finance companies. The probe will deal with alleged overcharges of \$25-million or more on collision policies.

The subcommittee, which is headed by Sen. Mike Monroney (D-Okla.), "sometime this month" will summon state regulatory officials and executives of at least six companies. A subcommittee spokesman says preliminary evidence indicates that thousands of auto purchasers have been charged Group 2 collision rates (applicable where drivers under 25 years old are in a family) when they are entitled to cheaper rates under Group 1 (no driver under 25) or Group 3 (for farmers, ministers, and other special groups).

The subcommittee source says these insurance companies have been asked to testify: Service Fire (an affiliate of Universal CIT Credit Corp.); Cavalier and Calvert Fire (both associated with Commercial Credit Co.); Emmco (Associates Discount Corp.); Industrial (American Installment Credit Corp.); and Marathon (Pacific Finance Corp.).

The inquiry is not likely to produce any legislation. At this stage of the game, the subcommittee is mainly interested in finding out what progress has been made in making refunds and what steps are being taken to prevent future misclassification of policy purchasers.

. . .

## U. S. Can Be Sued for Damages

### When Its Fire Fighters Goof

In a precedent-setting decision, the U.S. Supreme Court ruled this week that the federal government can be sued for damages caused by the negligence of the U.S. Forest Service in fighting fires.

The Federal Tort Claims Act, a relatively new law, makes the government liable—just as an individual is liable—for injuries caused by the negligence of government employees. But liability in each case is determined by the law of the state in which claims are filed, even though cases are heard by federal judges.

The new case involves claims for more than \$1.4-million brought by Rayonier, Inc., a Washington State pulp manufacturer, and other property owners near the Olympic National Forest. They allege Forest Service firemen were negligent in controlling a 1951 fire that was started by a spark from a railroad engine passing over a government right-of-way.

The Justice Dept. argued that the Tort Claims Act did not abolish the government's traditional immunity from liability for negligence of firemen. It warned that if the government were held responsible for such negli-

gence it some day might be held liable for the destruction of an entire town or city by forest fire.

But the Supreme Court took a different view. Justice Hugo Black, speaking for a 7-to-2 majority, said that the very purpose of the act was to establish just such "novel and unprecedented governmental liability." The U.S. is liable, Black ruled, "if (State of) Washington law would impose liability on private persons or corporations under similar circumstances."

Black ordered the lower courts that had dismissed the suits of the property owners to decide whether the laws of Washington State do impose liability for negligent fire fighting on private persons. If so, the federal government must pay the damages.

. . .

## Labor Unions Lose a Round

### In Atomic Power Project Fight

Labor unions battling a proposed private atomic power generating project in Michigan lost a round this week. Hearing Examiner Jay A. Kyle, presiding at the Atomic Energy Commission hearing, dismissed union objections that the \$43.2-million plant at Monroe, near Detroit, would be dangerous to the public.

Power Reactor Development Co., a combine of 23 utilities and industrial companies, is seeking an AEC license for the project, which would feature a fast breeder reactor (BW—Jan. 12 '57, p27).

Objectors are the United Auto Workers, United Paperworkers, and International Union of Electrical Workers, which seek to have an AEC-granted provisional construction permit set aside on grounds that the plant would pose public health and safety hazards. Kyle's ruling established that (1) the combine has financial ability to build and operate the plant, and (2) no undue public risk is involved. The unions will have another chance to make their case during cross-examination of PRDC's supporting witnesses, starting Mar. 4.

At midweek, in an unrelated development that has potential bearing on the precedent-setting PRDC hearing, AEC released its 21st semiannual report. It shows in a study of 200,000 employees of AEC's contractor companies in the past 9½ years that 99.4% were exposed to less than one-third of the permissible annual dosage of radiation.

. . .

## SEC Questions Legality

### Of Crowell-Collier Bond Deal

Staffers at the Securities & Exchange Commission privately hint that the investigation into the Crowell-Collier bond-stock transactions shows that the securities should have been registered.

The hearing, in its third week, is looking into SEC charges that the publishing company submitted false information to the commission in representing a \$4-million bond issue in 1955-56 as a private sale.

As a private sale, the offering was not subject to full registration and financial disclosure provisions. Staff members now feel that evidence indicates that the bonds were sold to so many people that the sale could not have qualified as a private offering.





## PREPARATION of BUDGETS and FORECASTS *using electronic computers*

One of the Ramo-Wooldridge teams working on business data processing recently solved an interesting problem relating to the proposed use of a large-scale electronic computer for the preparation of budgets and forecasts. The existing manual method, as is common in such cases, required many man-months of compilation with the additional disadvantage of being unable to reflect the latest information available.

A thorough study of the manual system by the Ramo-Wooldridge team of scientists and business procedures specialists revealed that the existing manual procedures, if simply translated into a computer program, would be so inefficient as to offer little advantage over the existing system. Further analysis of the problem, however, disclosed that it could be solved in a highly satisfactory manner on an electronic computer by applying the statistical method known as regression analysis.

Using this established technique of analysis, a program was set up for the computer, and forecasts prepared periodically of the most significant aspects of operating cost. Over a period of several months, such forecasts have reached the point where they correlate within 98% or better of the subsequent actual experience.

New forecasts for the business, a single-plant operation, can now be prepared in a matter of three or four days. The short time required using this technique makes it practical to prepare a new forecast whenever there is a significant change in operating conditions. This is a striking result when compared to the 30-60 days previously required for the preparation of such forecasts. In a multi-plant operation, it is estimated that such forecasts could be prepared in 10 days, with half of that time being utilized in obtaining the simple, basic data required from each of the plants.

The techniques evolved in this study are generally applicable to all types of management and financial planning such as forecasting inventory levels, labor costs, overhead costs, and plant, equipment, and material requirements.

This particular study is a good illustration of the fact that to get the most out of the new techniques of automation and data processing, it is usually necessary to tailor the business methods and procedures to the characteristics of the equipment to be used. This is accomplished, in the automation projects undertaken by Ramo-Wooldridge, by the use of teams of experienced scientists, engineers, and business procedures specialists.

*If your company has a problem in automation or data processing that may need an integrated systems approach, we would be glad to discuss it with you and tell you whether we think we could be helpful.*

### The Ramo-Wooldridge Corporation

5730 ARBOR VITAE STREET • LOS ANGELES 45, CALIFORNIA



# Fuss in the New AFL-CIO Family

● The honeymoon of labor unity is definitely over, and squabbles inside the merged group are in the open.

● At Miami Beach this week, there was heated talk of racketeering, jurisdictions, and local-level mergers.

● But the prospect is for renewed AFL-CIO vigor to emerge from frank discussion of internal troubles.

When AFL and CIO merged into a single labor movement 14 months ago, leaders tacitly agreed to put controversial issues aside as far as possible for a year. They evolved a "don't rock the boat" policy, hoping to give the new AFL-CIO an unruffled year for adjustments to unity.

The year ended last December. This week in Miami Beach, the federation's powerful 29-man executive council demonstrated that the unwritten rules against controversy no longer apply. Led by the federation's president, George Meany, the council began to take on internal issues that have troubled the AFL-CIO since the merger—problems such as labor racketeering, jurisdictional feuding, delayed AFL and CIO mergers at state and local levels, and differences in opinion on foreign policy.

• **New Muscle**—The sometimes stormy sessions that resulted shook the federation's young family tree—but did not wrest loose any of its strengthening roots. There's a feeling among laborites gathered in Miami Beach that AFL-CIO will be healthier and stronger—more ready for new growth—as a result.

Certainly, despite the hot tempers and sharp words, there is now a sense of relief that stresses and differences have been brought out into the open. Some will continue to be controversial, because few solutions have been worked out yet. However, a start has been made toward a set of ground rules for the future. These may not always be followed—and explosive problems may have to be faced if they aren't—but they nevertheless provide a guide to how AFL-CIO hopes to function as a working, day-to-day organization.

• **Still Whole**—This is more important to employers and others who follow labor closely than any signs of wrangling. The apparent controversy and sharply opposed stands on issues should not be interpreted, hopefully or otherwise, as the first cracks in AFL-CIO and an indication that unity won't last. That's not true, so far.

The debate in Miami Beach should

be viewed, rather, as a sign of development into a federation that will never be completely unified in its thinking but that feels, increasingly, that it has the internal strength to cope with whatever problems may come up.

## I. Racketeering

The stormy sessions at the midwinter conference in Miami Beach oceanfront hotels took up a number of problems. But the continued existence of corruption and racketeering in a small part of the labor movement was at the top of the agenda. The publicity about the appearance of officials of the International Brotherhood of Teamsters before a Senate investigating subcommittee put it there (BW—Jan. 26 '57, p95).

Meany made the use of the Fifth Amendment by Teamsters officers the first order of business for the council. It was also the principal topic in hotel corridors, card rooms, pools, and other spots where union leaders and staffs congregated.

• **Unanimity**—Meany proposed a "statement of policy," to the effect that any union official invoking the Fifth Amendment to avoid testifying at any bonafide investigation has no right to hold office. The council approved this with a single dissenting vote—that of Dave Beck of the Teamsters.

Under the new policy statement, any union officer who refuses to testify faces an investigation either by his union or AFL-CIO. If his own union does not suspend him, then the federation may act against the union—by suspension or ouster for failing to comply with AFL-CIO policy.

The proposal was debated, at times hotly, for two hours. Beck reiterated his union's policy against submitting to "political probing" into its internal affairs. Members of the council from the old CIO, pointedly critical of the Teamsters, demanded a get-tough attitude against labor racketeering "wherever it might be found."

• **Open Break?**—The apparent direct

conflict of policies between the federation and the Teamsters—and the latter's defiant "throw us out" attitude—raised inevitable questions about the future of the truckers' union in AFL-CIO. Nevertheless, no responsible AFL-CIO leader was willing to wager that the Teamsters would quit the federation any time soon—or remain in AFL-CIO indefinitely.

On both sides, there is a growing conviction that the Teamsters and the federation can exist without one another—as the United Mine Workers and AFL-CIO now do. Many laborites in Miami Beach expressed private opinions about the "inevitability" of a break with the Teamsters—one not expected soon but bound to happen someday.

• **Code of Conduct**—The federation's executive council also adopted a three-point code of conduct for union officers that conflicts with the interests of Beck and the Teamsters' controversial Midwestern leader, James R. "Jimmy" Hoffa.

The code spells out procedures for handling welfare funds, bans racketeering ties, and declares that it is improper for a union leader to have outside business interests and to make money through his connections with the union. Both Beck and Hoffa admit business connections that bring them substantial personal incomes.

Both Teamsters' leaders indicated they will ignore this action.

• **Crackdowns Due**—The defiant attitude of the truckers' union and its leaders makes a head-on collision with AFL-CIO rules of ethics appear to be only a question of time. Meanwhile, the first concrete anti-racketeering action by AFL-CIO is due early next week, when the executive council acts on reports by the AFL-CIO Ethical Practices Committee on allegations of mishandling of welfare funds within three small unions—the Allied Industrial Workers, the Laundry Workers, and the Distillery Workers. These unions, with a total 170,000 members, may be suspended as a result of the committee's findings.

## II. Jurisdictional Feuds

Troubles with the Teamsters weren't limited to the racketeering issue. The union was also in the center of heated controversy between craft and industrial unions over maintenance and renovation jobs in industrial plants.

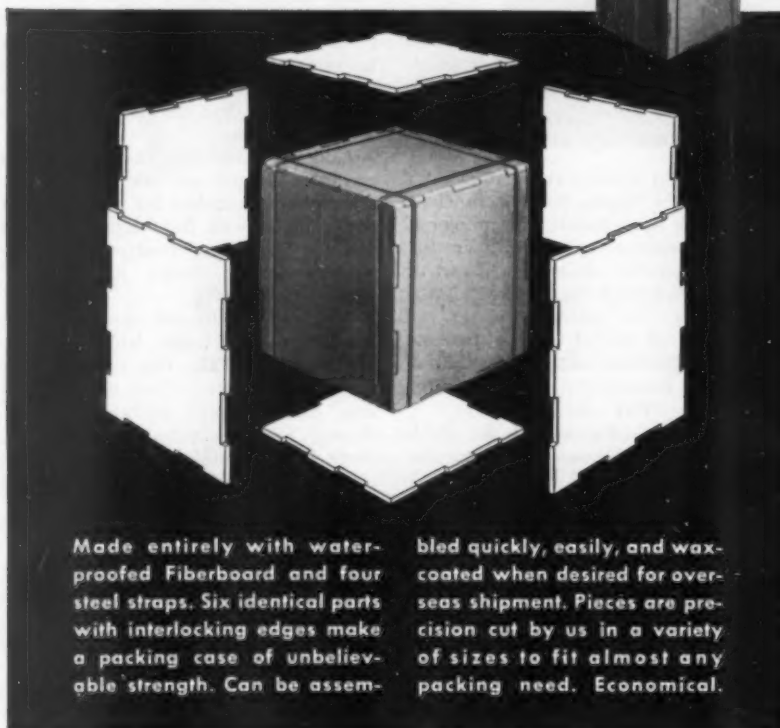
The unions making up the powerful Building & Construction Trades Dept.

UPSON ENGINEERED

# FIBERBOARD

**Creates A New Packing Case**

**NO NAILS, NO SCREWS  
NO WOOD FRAMING...**



Made entirely with waterproofed Fiberboard and four steel straps. Six identical parts with interlocking edges make a packing case of unbelievable strength. Can be assembled

quickly, easily, and wax-coated when desired for overseas shipment. Pieces are precision cut by us in a variety of sizes to fit almost any packing need. Economical.

Upson offers you not only an amazing material, but also a superior cutting service for countless parts and cut-outs. Fiberboard is tough, yet resilient, with superior finishing and sound deadening qualities. Our Fiberboard Engineering Service includes manufacturing and precision-cutting. We punch it, bevel it, die cut it, waterproof it and apply special finishes; delivering the finished part ready for production. Choice of lengths, widths, thicknesses and surface textures. Send this coupon for our free idea booklet of uses and for our free sample kit.

## UPSON

94% Wood Fibers Laminated for Great Strength

### The Upson Company

132 Upson Point, Lockport, N.Y.

Send me free idea booklet and sample kit.



NAME

POSITION

NAME OF COMPANY

STREET

CITY

STATE

**"... former CIO unions shrugged off the dispute with the crafts as an age-old controversy..."**

**FUSS IN AFL-CIO starts on p. 109**

of AFL-CIO claim the craft jobs. So do industrial unions that have plant-wide contracts, covering all employees. This was a hot issue even before the AFL and CIO merged, and it is just as hot now.

• **Disenchanted**—Meany proposed a peace plan based on arbitration. The craft unions turned it down. They argued that acceptance could mean surrender of long-established job rights. And, in rejecting Meany's plan, the unions—all from the old AFL—reaffirmed their disenchantment with the merger.

Former CIO industrial unions shrugged off the dispute with the crafts as an age-old controversy, likely to drag on for many more years without creating any real hazards to AFL-CIO. At the same time, the Teamsters, interested in bloc support, spurred craft defiance of the Meany plan and reportedly offered \$500,000 aid to the Building & Construction Trades Dept. for an all-out organizing attack on industrial unions in 1957.

### III. State Mergers

The truckers' union was also in the hottest part of the controversy over the failure of state and local AFL and CIO bodies to merge in most states. Twenty lower-level amalgamations have been completed—none of them in important industrial states.

Protesting CIO officials from five states, including New York, New Jersey, and Michigan, called for new policies to ease the way to state mergers. They complained of "unreasonable demands" from AFL groups—including an insistence on top state jobs—and of continuing pressure from the Teamsters against AFL-CIO alliances at the state level.

Walter Reuther, former head of CIO and president now of the AFL-CIO Industrial Unions Dept., placed the protests before the council with a strong recommendation for moves to speed state mergers. He stressed that, with most legislatures in session this year, the failure of AFL and CIO subsidiaries to combine diminishes the federation's effectiveness in state capitals.

The executive council is authorized to force mergers if they aren't completed voluntarily before next December. However, top-level pressure for state unity is expected to increase before that. **END**



# Short cuts with Recordak Microfilming

*Latest reports on how this low-cost photographic process is simplifying routines for more than 100 different types of business . . . thousands of concerns*



**SURE OF SCORE AT 19th HOLE**

ATLANTA, GA.

Members of the renowned East Lake Country Club don't look quizzically at their monthly bills and reach for the phone. The chits they sign either at the club or downtown at the parent Atlanta Athletic Club are photographed in a Recordak Microfilmer and mailed out with the bills.

This all but ends questions about charges—frees the girl who used to be glued to the phone for two weeks after bills went out. And it cuts costs and speeds up the billing operation, too—no need, now, to list dates and describe charges on bills.

This billing short cut is also cutting costs for all types of business with charge accounts—retail stores, dairies, oil and telephone companies, to name just a few.



**SAVES BY MICROFILMING CHECKS FOR CHICKS**

CHICAGO, ILL.

The Forrest Poultry Company saves at least two hours a day by microfilming incoming checks from customers.

This did away with the handwritten check register and a 5-item description of each check. And it gets checks into the bank the same day they are received.

Proof again that even the simplest transcription jobs are costly when compared with Recordak Microfilming. You can get a Recordak Microfilmer to match your needs which will photograph from 40 to 500 items a minute.



**TAKES RISK OUT OF CHECK CASHING**

ROCKFORD, ILL.

A liberal check-cashing policy can boost your business. And it needn't be a risky headache.

At latest count 25 markets of the Piggly Wiggly Midwest chain were using low-cost Recordak Microfilmers to cut red tape for customers, and to protect against lost or stolen checks.

New Recordak ID Microfilmer takes a picture of the check casher as well as his check and identification—all for 1/4¢! Low-cost insurance that discourages the most wily "Bad Check" artist. This new microfilmer—which sells for \$775 or rents for \$25 per mo.—can be used most profitably by even small stores, auto-rental agencies, liquor dealers, colleges, plant security and police departments, and others wanting to play it safe with low-cost identifications.

## VALUABLE FREE BOOKLET

It will pay you to read "Short Cuts that Save Millions." Shows how routines like yours have been simplified . . . how Recordak Microfilmers give you up to 80 pictures for 1¢.

Prices quoted subject to change without notice



## RECORDAK

(Subsidiary of Eastman Kodak Company)

**originator of modern microfilming—  
and its application to business**

\*\*\*\*\* MAIL COUPON TODAY \*\*\*\*\*

RECORDAK CORPORATION A-2  
(Subsidiary of Eastman Kodak Company)  
415 Madison Avenue, New York 17, N. Y.

Please send free copy of "Short Cuts that Save Millions."

Name \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

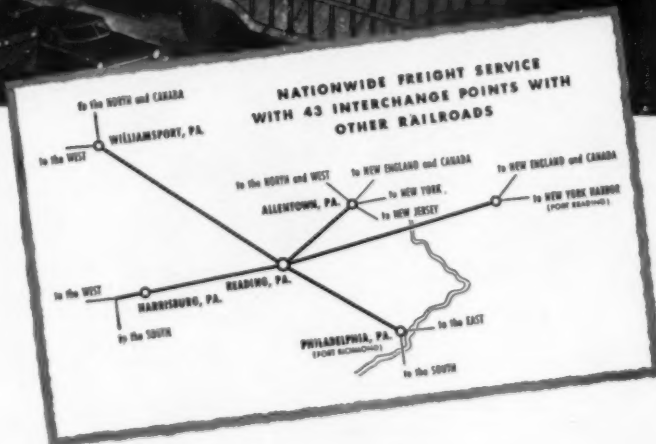


*When the going gets tough...*  
**DEPENDABLE SERVICE**  
*gets you through!*



It's a foggy, rainy night . . . the kind that plays havoc with heavy traffic on the highways. Not so with the Reading! It's smooth rolling *all* the way! That's why shippers all over the country are using this *outstanding* freight service. They know no matter what the weather or the conditions . . . the Reading delivers the goods.

Take advantage of this complete and efficient freight service . . . ship via the Reading!



## READING RAILWAY SYSTEM

### SALES and SERVICE

Get Valuable Routing Assistance To and From the Eastern Seaboard  
 By Reading Traffic Representatives Nearest You

ON-LINE: Philadelphia, Pa. • Wilmington, Del. • Trenton, N.J. • Reading, Pa. • Allentown, Pa. • Harrisburg, Pa. • Williamsport, Pa.  
 OFF-LINE: Boston, Mass. • New York City, N.Y. • Atlanta, Ga. • Buffalo, N.Y. • Pittsburgh, Pa. • Cleveland, Ohio • Cincinnati, Ohio • Detroit, Mich. • Chicago, Ill. • St. Louis, Mo.

# Reappraising Atomic Situation

● Official committee of labor experts says it's time for the government to decrease its role in handling disputes at the nation's atomic installations.

● They feel strikes at atomic plants are not so dangerous as before and that labor and management are mature enough now to settle their own differences.

The government has been nursing along the atomic industry's labor-management relationship for about eight years. Now, say a group of experts, it's time for weaning.

Concluding a study begun two and a half years ago, the experts warned that maintaining a special government panel for atomic labor problems tends to keep the parties from growing up to their full responsibilities—and might even cause a regression to infantilism. They recommended that the Administration shift to a policy of relative non-intervention, with the President stepping into a dispute only after the most careful and cautious study.

The experts are a committee of five named by Labor Secy. James P. Mitchell after a crisis at the Oak Ridge installation in 1954. David L. Cole, veteran labor relations consultant, is the committee chairman. Other members are Prof. John T. Dunlop of Harvard; Prof. Keith Mann of the Stanford University Law School; Charles A. Sprague, former governor of Oregon, and John W. Nickerson of Connecticut, also a consultant and expert on production methods and incentive plans. Mitchell asked the group to recommend improvements in the government's labor policy for atomic installations.

• **Let Them Strike**—The report this week completed the Cole committee's mission. Between its lines there seems to be this admonition to the Administration: "Take a 'let them strike' attitude."

That doesn't mean that atomic strikes are no longer important. It means only that (1) such strikes aren't so dangerous as they used to be, and (2) the committee is convinced that if labor and management have no assurance the government will bail them out, they are far more likely to face up to their responsibilities and make stoppages less likely.

"The sense of urgency for production of atomic weapons . . . and the fears of an interference with normal operations in atomic energy installations have diminished," the Cole committee concluded. "It is no longer sound to make the unqualified assumption that the general approach [to critical labor

disputes] is not applicable to atomic energy."

• **Early Difficulties**—Back in 1949, after a series of difficulties that brought even Congress into the act, Pres. Truman established a special Atomic Energy Labor Relations Panel to handle disputes in the industry. The first chairman was William H. Davis; currently it's Cyrus S. Ching. The Davis panel was independent. Later, the AELRP was shifted into the Federal Mediation & Conciliation Service for housekeeping purposes. As of last July 1, it was transferred to the Atomic Energy Commission—which now has the chief responsibility for implementing the Cole committee's report.

The Davis panel had its hands full at first, administering to what were considered the special needs of atomic labor-management relations. The frontier nature of the communities, the need for secrecy, and health hazards created special problems that had to be coped with. Now, according to the advisory committee, the "situation on the whole is substantially different."

• **Growing Experience**—Today the tendency is for the atomic installation to blend into the community. The parties consider the problems of health and safety standards more routinely—without much of the emotionalism of the early period. Security regulations, once eyed with suspicion by unions as a management technique, are no longer a serious irritant. And labor relations involving some 92,000 workers in atomic installations (about 32,000 unionized) now benefit from more experience and maturity.

"Many parties at atomic energy facilities have reached the stage where they regularly settle contract renewals without resort to the panel. Others appear to accept larger responsibilities. Some installations have never used the specialized procedures at all," the Cole committee reported. It noted that "repetitive resort to the panel is found principally at Oak Ridge and Sandia, and to a lesser extent at Arco, Idaho."

• **Recommendations**—So the committee recommended that the special Atomic Energy Labor Relations Panel

taper off its activities, with a view to eventual abolition by the President. The AELRP had already taken curtailment steps. Ching beat the Cole committee to the punch with a brief memorandum three weeks ago, advising the industry that his panel will be available in the future only after the parties have exhausted "all normal collective bargaining processes."

Under the Cole committee recommendations, atomic disputes would be handled under general procedures of the Taft-Hartley Act—including the 80-day injunction against a national emergency work stoppage. However, the committee advised against any finding of an "emergency" at a contractor-operated government installation except by the President, who would act on the advice of the National Security Council.

Furthermore, the committee urged, the National Security Council should consult "highly placed and respected leaders of labor and management" before advising the President.

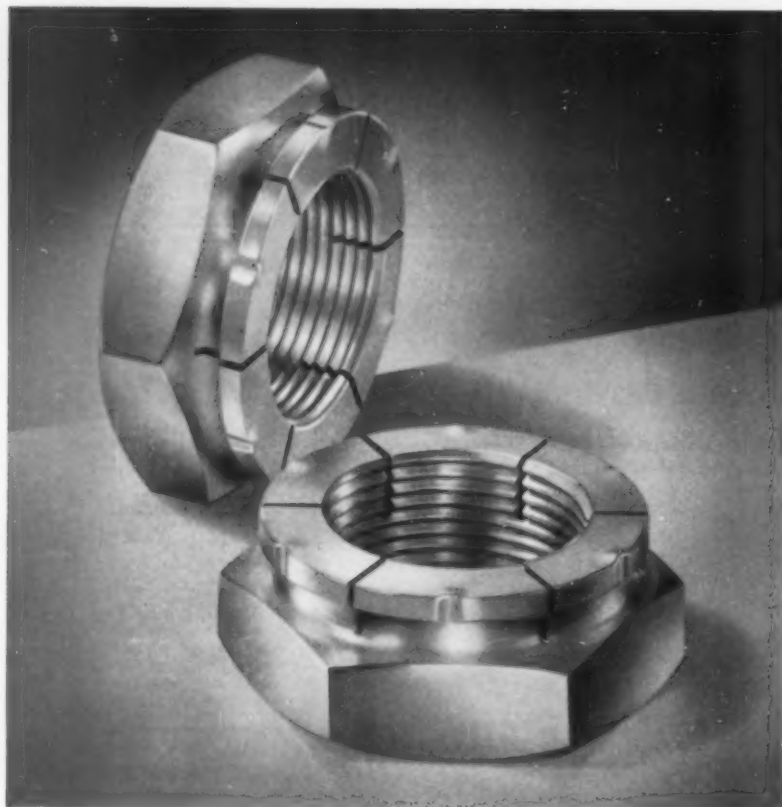
• **Conferences Urged**—Meanwhile, the committee urged the Atomic Energy Commission to institute a series of conferences with representatives of its contractors and unions (mainly the Atomic Trades & Labor Council, made up of craft groups, and the Oil, Chemical & Atomic Workers) to develop policies, procedures, and techniques to make direct negotiations more meaningful and effective.

Finally, the committee urged that contractors and unions write into their contracts, where necessary, adequate provisions for safeguarding life, property, and processes in case of a strike. These would include such measures as ample notice before any shutdown and the designation of standby crews "who would respond to call despite the existence of a strike."

• **AEC Is Silent**—Officials of the AEC declined to comment on the recommendations early this week. The commission is still skittish about labor relations in AEC installations. Some labor relations experts in Washington note dryly that under the circumstances they won't be at all surprised if the whole report is received, pigeonholed, and forgotten.

Generally, the Cole committee report is in line with the Eisenhower Administration's policy of keeping the government out of labor disputes as far as possible. The committee recommendations could be adopted as an extension of that policy. Interestingly, though, the committee members were predominantly "old school" experts, whose government experience was largely in pre-Eisenhower years. **END**





## Flexloc thin nuts save space, weight and production time

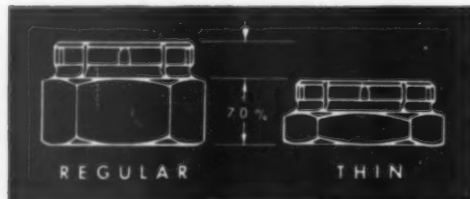
**Self-locking nuts are 30% lower and lighter; speed up assembly with hand or power tools**

Self-locking FLEXLOC thin nuts are 30% lower than regular height locknuts of the same nominal diameter. They fit into spaces where regular height locknuts will not go. You can design lighter, more compact units with them.

Where you must reduce weight in a completed assembly, you can save by using shorter bolts with these lighter nuts. And you save production time. The length of engagement of mating threads is shorter; fewer revolutions of hand wrenches or power nut runners are needed to seat them.

FLEXLOC nuts are of 1-piece, all-metal construction. You can use a FLEXLOC fully seated as a locknut or at any point along a bolt as a stop nut. Once the threads in the resilient locking section are fully engaged, the FLEXLOC grips the mating threads with uniform locking torque wherever wrenching stops. Since there are no nonmetallic inserts to come out or deteriorate, the locking life of a FLEXLOC is virtually unlimited.

Your authorized industrial distributor stocks FLEXLOC nuts in a variety of sizes, materials and finishes. Consult him for details. Or write us for information about your special locknut problem. Flexloc Locknut Division, STANDARD PRESSED STEEL Co., Jenkintown 57, Pa.



FLEXLOC thin nuts are 30% lower than regular height locknuts. There is a corresponding saving in weight. In sizes through  $\frac{1}{2}$  in., thin FLEXLOCs meet tensile strength requirements for regular height locknuts. FLEXLOC nuts can be made in the thin type because every thread, even locking threads, carries its full share of the load. There are no nonmetallic inserts to waste head space or weaken the structure.

STANDARD PRESSED STEEL CO.

**FLEXLOC®** LOCKNUT DIVISION

**SPS**

JENKINTOWN PENNSYLVANIA

## Looser Reins

**Decisions indicate Supreme Court will seek to let labor and management bargain with more freedom.**

The Supreme Court is laying down a series of Taft-Hartley Act decisions that mark it as a liberal interpreter of labor-management affairs.

Under Chief Justice Earl Warren, the nine-man court is showing increasing evidence that it will take a broad view of the law rather than accept the more limited and confining restrictions in the separate sections of the act. This means more freedom for union and employer action.

In a key case last week, the Supreme Court issued an 8-0 decision granting a union the right to strike at wage-reopening time midway in a long-term contract (BW-Jan.26'57,p38). By doing so, the court threw out a lower court interpretation of an ambiguous clause in Taft-Hartley that bars such strikes until the end of a 60-day notice or expiration of a contract—"whichever is later."

• **Self-Defeating**—A literal interpretation of this provision, said the unanimous decision, would conflict with the over-all purpose of Taft-Hartley "to substitute collective bargaining for economic warfare and to protect the right of employees to engage in concerted activities for their own benefit."

This key clause, pointed up by Warren, formed the basis for the decision in the latest case—the NLRB vs. Lion Oil Co.—and also provided the substance of a similar decision a year ago. Warren noted in the earlier ruling (Mastro Plastics Corp. vs. NLRB) that a narrow, literal ruling would have defeated the purposes of the act.

In the Mastro case, the court ruled unanimously that a union can strike against an unfair labor practice even though there is a no-strike clause.

• **Freedom**—The substance of both decisions is that the court can be expected to take the broad Taft-Hartley view of encouraging peaceful and established labor patterns, while at the same time allowing employees a freedom of action—particularly where the end result might further peaceful relations.

By forbidding a strike at wage-reopening time in a long-term contract, the court would be ruling directly against the act's emphasis on bargaining out differences. "Unions would be wary of entering into long-term contracts with machinery for reopening them from time to time, if they thought the right to strike would be denied them for the entire term." **END**

DOW CORNING

## SILICONE NEWS

# Smart Marketers Sell "Convenience"

Silicone insulation makes possible  
"Powermatic" toaster

Perk-up electric percolator with  
Silicone laminate

New "jet fast" window cleaner  
made with Silicones

**CONVENIENCE, CONVENIENCE AND STILL MORE CONVENIENCE** — that's what today's buyers demand. And they're getting what they want — thanks to Dow Corning Silicones. Here are a few examples of how silicones aid manufacturers in providing features that spell more convenience — and more sales.

**LOOK, NO HANDS**—Now McGraw Electric has produced a "Powermatic" Toastmaster that takes a slice of bread from your hand, lowers it lovingly, toasts it just right, then wafts it gently back up, all under its own power. Nothing to push or pull. Secret? A tiny motor insulated with Dow Corning Silicones.



The motor, which is toasted at 400°F right along with the bread, would not be possible without silicone insulation. And Dow Corning silicone insulation can take years and years of toasting without damage. That's been proved in thousands of hard-working industrial motors and transformers. Add it all up and you have a more convenient, super-skilled appliance that does everything but butter the toast for you! No. 45

**DUNKING ALLOWED** — An accidental dip in dishwasher won't wreck the electrical connections in the new Mirro-Matic Percolator, made by Aluminum Goods Manufacturing Company. Reason? The plug-in



insulators are now fabricated from silicone-glass laminate. Why? The silicone laminate has only one hundredth the moisture absorption of the phenolic insulators formerly used . . . a big difference when you're dealing with electricity! Silicone-glass also has greater physical strength, more heat resistance . . . it's more reliable all around. Yet, the silicone laminate doesn't cost a penny more . . . plain low-cost stampings are used instead of molded parts. More savings are realized through less breakage during assembly. No. 46

**FRY PANS, TOO** — find strong sales appeal in easy washability and controlled electric heat. The Sunbeam

Automatic Frypan gets its extra convenience from Silastic® seals that protect the electrical connections. Silastic, Dow Corning's silicone rubber, keeps them dry even when the Frypan is almost totally immersed in water. No. 47



**GOT WINDOW "PAINS"?** Window-cleaning has always been one of the most miserable household chores. But now to the rescue: new "Jet Spray Bon Ami", an aerosol bomb that does all the dirty work. You just spray it on, wipe it off and the glass sparkles like new again. It's that simple.

At the press of a button, the Bon Ami bomb sprays foam containing Dow Corning Silicones. Remaining on the window pane after the foam is wiped away, the silicones form an invisible water repellent film that keeps the glass sparkling longer and makes it easier to clean next time.



The foam, by the way, prevents splatter and "run-off" . . . a special convenience to housewives. Jet Spray is fine for other surfaces, too: tile, enamel, chrome, painted wood to name a few. No. 48

\*T.M. REG. U.S. PAT. OFF.

FOR MORE INFORMATION on silicones used in these applications, circle reference nos. in coupon.

	DOW CORNING CORPORATION, Midland, Michigan Dept. 2214			
	45	46	47	48
Name _____				
Title _____				
Company _____				
Address _____				
City _____	State _____			

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS DETROIT LOS ANGELES NEW YORK WASHINGTON, D.C.  
 CANADA: DOW CORNING SILICONES LTD., TORONTO GREAT BRITAIN: MIDLAND SILICONES LTD. LONDON FRANCE: ST. GOBAIN, PARIS



## How bottlers keep purity in their "pop" ...with RCA Beverage Inspection Machines

With thirsty Americans consuming millions of soft drinks yearly, modern bottlers apply electronics in providing the kind of beverages you and your children can drink with confidence.

On the bottling lines, RCA Beverage Inspection Machines provide automatic inspection of bottled drinks with a speed and accuracy no human operator could possibly duplicate. Even the most minute foreign particles are instantly detected and bottles rejected from the line as six sets of electronic "eyes" constantly scan separate zones of each filled bottle. Users find RCA "BIM's" cut their operating costs,

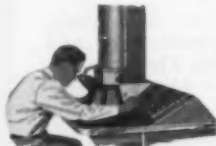
boost high speed bottling efficiency and offer positive protection to the consuming public.

A companion equipment, the RCA Bottle Uncaser, has enabled bottlers to mechanize a once tedious and time-consuming operation while eliminating a great percentage of glass breakage. For the beverage industry—and perhaps for *your* industry, too—RCA electronic products mean more efficient, more profitable operations.

*For free booklet on the profitable uses of RCA Beverage Equipment, or for information on other RCA electronic products, write Dept. O-26, Radio Corporation of America, Commercial Electronic Products, Bldg. 15-1, Camden, N.J.*



RCA Sound Systems are engineered to give the best in internal communications. Widely used by industrial plants, schools and large institutions for speech or music.



RCA Electron Microscopes are vital research tools of science and industry. They permit clear observation and photography of particles less than 1/5,000,000th of an inch.



RCA TV Cameras, used in many television stations, are part of a complete line of high quality equipment RCA supplies for radio and TV broadcasting stations.



RCA Mobile 2-Way Radio provides instant 2-way communication between office and vehicles in the field. It speeds service, reduces mileage and telephone expense.



Tmk(a) ©

**RADIO CORPORATION OF AMERICA**



# In Labor

## UAW's Bid to Engineers Wins Response From Honeywell Union

The independent Federation of Honeywell Engineers may affiliate with the United Auto Workers this month. If it does, the auto union will chalk up its first major success in an all-out campaign to represent engineers in aircraft and allied industries.

The executive board of the Honeywell Engineers has unanimously endorsed affiliating with UAW, and last week the engineers union council voted 61 to 4 for the move. A two-thirds majority of the federation's 1,000 members—who are employed by the Minneapolis-Honeywell Regulator Co.—must now approve the plan.

The Federation of Honeywell Engineers is now affiliated with the Engineers & Scientists of America, a national independent engineers union. For a year or more, the Honeywell group has been dissatisfied with what it describes as ESA's emphasis on "pure professionalism." Pres. Everett Taft of the Honeywell Engineers advocates a broader base of membership than ESA believes in—he would include technicians. By leaving them out, he contends, ESA has "substituted snobbery for mutuality."

Taft and other Honeywell leaders also call for "more muscle" to further the best interests of federation members—something UAW can supply but ESA can't, he says.

A year ago, in a vote of the Honeywell Engineers membership, a proposal to withdraw from ESA lost by a narrow margin. Although the vote was 3-to-2 for leaving ESA, this fell short of the necessary two-thirds majority. With a new home in UAW in prospect, the proposal is expected to carry this year.

Jack Conway, personal aide to Walter Reuther in UAW, invited the Honeywell group into the auto union. He told a meeting that UAW now represents 10,000 graduate engineers in the auto industry, and is organizing among engineers and technicians in aircraft.

Conway also announced that engineering locals in UAW will retain their autonomy in a separate department—on the same basis as skilled-trades and white-collar groups.

## Ohio Phone Strike Spurs Move For More Power for State Patrol

Influences of the Portsmouth (Ohio) telephone strike—still in effect with acts of vandalism reported almost daily—are to be seen in a measure introduced in the Ohio state senate last week. The bill is designed to broaden the powers of the state highway patrol.

The agency is now limited to the enforcement of state highway traffic laws and the apprehension of criminals using the state highways. When the highway patrol was set up by law in 1933, organized labor was promised that it would never be used to intervene in labor dis-

putes. Because of this, the patrol has been used on only a limited basis in the telephone strike—even though vandalism has frequently involved poles and cables along highways.

The bill now before the state senate—and sure to be fought to the end by unions—would make the highway patrol available in "any form of crime or violence," including labor disputes.

## Group in House Committee Curbs Barden's Power Over Labor Bills

Labor measures will have more chance of consideration in the House Committee on Education & Labor this year—even though the committee chairman will still be conservative Rep. Graham A. Barden (D-N. C.) and the balance between conservatives and liberals will be about the same as in 1956 (BW—Jan. 19 '57, p63).

Barden exercised a one-man control last year that enabled him to bottle up measures sought by labor. Northern Democrats, supported by a number of Republicans, have wrested substantial concessions from Barden this year, in the form of new rules reducing his power to kill proposed legislation by refusing to bring it up.

The liberal bloc tried to push through other "reforms" in the committee, but failed. A proposal to take away the chairman's right to appoint staff aides was defeated, 14 to 12; its particular target was the Barden-appointed committee counsel, James Brewbaker, a former lobbyist for the National Assn. of Manufacturers.

## Coal Companies Sue UMW Over Loss of TVA Contracts

Two coal companies and their owners have sued the United Mine Workers for \$10.8-million (treble damages) in an aftermath of UMW's fight against the buying policies of the Tennessee Valley Authority. Suits filed in the U.S. District Court in Knoxville allege that union-inspired violence in 1955 caused the companies to lose TVA contracts.

Love & Amos Coal Co., Nashville, and Osborne Mining Co., a Kentucky company, filed the actions. They are seeking \$3.6-million in compensatory damages, with punitive damages of twice that amount under the Taft-Hartley Act.

Love and Amos contracted with Osborne Mining Co. for coal to fill a TVA contract in 1955. Osborne subcontracted the mining to 25 small operators. All were nonunion.

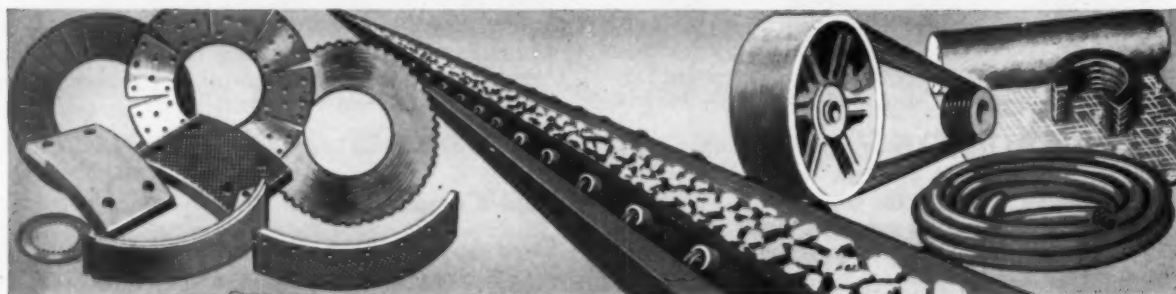
The suit says that UMW "became incensed at the action of TVA" in entering into contracts with nonunion operators. It quotes John L. Lewis as saying that TVA had ignored the provisions of every paragraph of the Walsh-Healey statute.

While putting pressure on TVA in Washington, UMW also picketed the nonunion operations. The suit alleges that this led to violence around Jellico at the Tennessee-Kentucky border in 1955. The end result was the loss of the TVA contract.

Whoever You Are . . . Whatever Your Business . . . An R/M Product Touches Your Life



**R/M PRODUCTS ARE ON THE JOB** wherever construction men are improving highways, spanning rivers, building dams or factories, or tunneling through mountains.



**SOME OF THE R/M PRODUCTS** used in construction include brake blocks, linings and clutch facings; conveyor belts; Poly-V® Drives; hose; mechanical packings and gasket materials.

## R/M Products Help the Construction Industry Meet Deadlines

When you see skilled construction crews at work on bridges, skyscrapers, highways, tunnels or dams, you are sure to find Raybestos-Manhattan on the job, too. R/M products, through reliable, economical performance, cut down-time and labor costs, help push jobs through on schedule. For giant bulldozers, shovels, trucks, and millions of passenger cars, R/M Brake Blocks, Brake Linings, and Clutch Facings provide smooth, safe stop-and-go operation. In pumps, compressors, hoists and other hydraulic equipment, R/M Mechanical Packings and Gasket Materials securely seal in steam, air and fluids under pressure. R/M Hose carries pressure to pneumatic hammers and drills. Wherever hose is needed in construction, for air, water, steam or suction, there's an R/M Hose to do the job well.

For reliable power transmission, R/M Poly-V Belt Drives are first choice because they transmit more power at lower cost. R/M Conveyor Belts carry rock, sand, gravel and earth at costs that help make operations profitable. And the use of R/M Adhesives helps cut costs, from bonding friction materials to metal to joining clay pipe.

Not only the construction industry, but hundreds of other industries as well depend on the economical, reliable products and specialized skills of Raybestos-Manhattan. R/M keeps seven great plants and laboratories working in four big fields—*asbestos, rubber, engineered plastics, and sintered metal*. Take advantage of this experience. Talk it over with R/M if your problem involves any of these materials.

**RAYBESTOS-MANHATTAN, INC.**

PASSAIC, NEW JERSEY

*Raybestos ... Condor* • MANHATTAN ... *Grey-Rock*

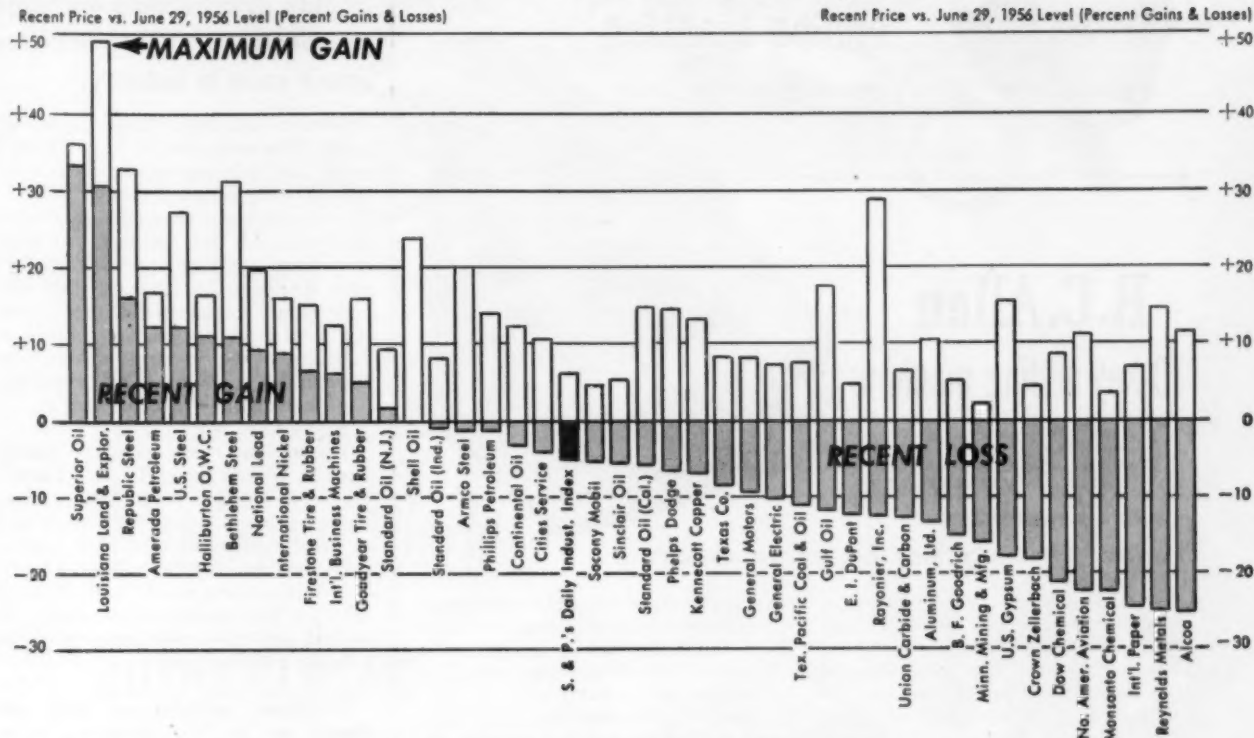
**SPECIALISTS IN ASBESTOS, RUBBER, SINTERED METAL, ENGINEERED PLASTICS**

Other R/M Products: Asbestos Textiles • Engineered Plastics • Sintered Metal Products • Abrasive and Diamond Wheels • Industrial Rubber • Conveyor Belts • Rubber Covered Equipment • Industrial Adhesives • Laundry Pads and Covers • Bowling Balls  
Factories: Passaic, N.J. • Bridgeport, Conn. • Manheim, Pa. • No. Charleston, S.C. • Crawfordsville, Ind. • Neenah, Wis. • Peterborough, Ontario, Canada



## THE MARKETS

### Favorites of the "Pros" Have Suffered, Too



Data: Biggest Industrial Common Stock Holdings of Closed- and Open-End Investment Companies on June 29, 1956, According to Vickers Associates, Inc.

© BUSINESS WEEK

## In Stocks, Anybody Can Err

Do you belong to the increasing army of "estate builders" who like to use their own judgment in selecting a portfolio? And if so, have you been a bit chagrined by the performance of some of your choices in the market's recent spell of price weakness?

You shouldn't be too downhearted; plenty of experts have been double-crossed by the market lately. Take a look at the chart above, showing the individual price action since mid-1956 of the 43 industrial common stocks that were then most popular with the professional managers of the open- and closed-end investment companies. The figures should bolster your morale, if only on a misery-loves-company basis:

- Only 13 of the stocks, or about 30%, went up during the period.
- A fat 30, or 70% of them, went down. And of these, 17, or 40% of the entire group, took losses ranging from 10.1% to 25.5%. Deep in the soup were another six, or 14%, with losses from 21.6% to 25.5%.

• **Experts Can Err**—Of course, these exhibits in no sense prove that pro-

fessional judgment in investments is no better than that of the "average" participant in the market. The experts are usually smart—often a great deal smarter—than the dabblers in the market, despite all the cracks about "If they're so good, why do they have to keep on working like everyone else?"

Various things help explain the slips of the pros. For one thing, they're human, and not equipped with infallible crystal balls. At times their judgments go haywire, just as smart corporate officials in other fields are known to err. This potentiality of failure has been forgotten all too often in recent years, because the experts have had such an easy time picking winners in most of the years since 1949.

And never forget what a strange beast the market is; never consistent except in its inconsistency, as the old saw has it. Prices have a great habit of falling on their faces, just when there is every reason to expect them to rise. Or rising when they look sickest, for that matter.

• **Futurities**—One explanation of the inconsistency is that the market reflects

what may be in the offing more than what is happening now. But that certainly isn't the whole answer, or even always true. In 1946, the market fell swiftly and sharply on the very eve of the greatest boom in history. In fact, it didn't seem to notice what was going on in the rest of the economy until almost three years later.

Added together, all this simply goes to show that it's entirely unfair to base any opinion of investment acumen—pro or simon-pure—on the performance of his portfolio over a short stretch. The latest spell of weakness hasn't been the only one in the 1949-1957 bull market; and all the earlier ones served as springboards to reach new highs.

At the same time, don't forget that some pretty smart observers of the market believe that a further substantial decline in stock prices lies ahead.

You can even find a scattering of pros who are boasting that they have been cashing in on paper profits from long-held commons, and sinking the proceeds into bonds that for the moment look safer to them. **END**





I've got the  
adding machine  
with a memory...

## R.C. Allen 10-key adding machine

**EXCLUSIVE MEMORY  
AND RECALL KEYS**

**SAVE TIME AND MOTION, AVOID ERRORS**

Only R. C. Allen has these most-wanted features. Make a mistake; press the Recall Key and you can speedily restore and correct errors without re-indexing. Press the Memory Key and hold any figure for later use; the Recall Key brings them back when you want them. You get these additional time and motion saving features in the R. C. Allen 10-Key Adding Machine . . . automatic step-over multiplication with positive back-space correction, single-double-triple cipher keys op-

tional, and motorized correction key to remove incorrect amounts before printing. The 10-Key Adding Machine is quality-built with compact, streamlined design, light touch keyboard and built-in rubber pad. Call your R. C. Allen dealer to see the years ahead performance and true economy of R. C. Allen Business Machines. See the 10-Key model or the full-keyboard machines, hand or electric, 6 to 13 column capacity. Consult the yellow pages and call him today.



**R. C. ALLEN  
VISOMATIC TYPEWRITER**

Now in 21 two-color combinations to harmonize with any office. The Visomatic has the exclusive visible, automatic margin settings, fastest margin setting of all; Quick-Switch platen for special jobs. Available with carbon or cloth ribbon, 26 type styles and carriage widths—11" to 26".



**R. C. ALLEN  
FULL-KEYBOARD ADDING MACHINE**

R. C. Allen full-keyboard electric models are engineered for speed and efficiency. Automatic clear signal prints with first item. Live repeat and subtract keys; subtractions print in red. Visible dials show running total. Automatic total and sub-total eliminate extra operation, reduce human error. Tape automatically jumps to tear-off position after total. Available in 6 to 13 column capacity.

Look first to



660 Front Avenue, N. W., Grand Rapids, Michigan

for every business machine purpose

Typewriters • Adding Machines • Bookkeeping Machines • Cash Registers • Safes and Insulated Files

## Wall St. Talks . . .

. . . about money rates again . . . unexciting earnings prospects . . . rising maintenance costs in industry.

Money rates have started tightening again. This week, cost of the Treasury's usual bill offering bounced back to 3.283% after last week's sag to 3.085%. On an equipment trust offering, Boston & Maine RR was assessed a 6.16% borrowing cost, highest rate charged on such financing in 25 years. Fed officials privately concede that they "eased up" too much in January, causing a "disorderly" rise in bond prices. Now they're tightening up much more vigorously than they had planned.

Frustrations are growing among analysts, reports Argus Research Corp.'s Harold B. Dorsey. That's because their analytical work lately has uncovered so "few companies that hold reasonably good promise of reporting earnings improvement in 1957. By force of habit, it has become uninteresting to analyze and report on a company whose earnings trend is flat."

Corporate maintenance costs are sharply up. In 1956, according to du Pont maintenance executive O. S. York, costs of keeping industry's equipment in shape jumped more than \$1-billion, or 9%, and they're slated to rise at least that much in 1957.

Successfully bucking the recent price downtrend: the common shares of A. M. Bvers Co., wrought iron pipe maker. Though without dividends since mid-1954, the stock opened this week at \$43.25 (43 times 1956 per-share earnings). That was 31% above its yearend price and 69% above its 1956 low. Interest has been buoyed by speculative purchases touched off by a string of rumors. The latest: Babcock & Wilcox, dean of the nation's boiler makers and also important in industrial atomic energy activities, will soon acquire the company.

How big the investment trust business has grown. At the 1956 yearend, Massachusetts Investors Trust, oldest and biggest of them all, could boast of some \$1.1-billion of assets, 94.5-million outstanding shares, 160,000 stockholders. Its investment holdings then consisted of commons of 134 companies in more than 20 industries. Oil stocks accounted for 22% of assets; next largest holdings, by size, were steel, utility, metal and mining, and chemical common stocks.

As management men with personal incomes averaging nearly \$20,000, we're a concentrated, low-cost market for expensive "consumer" items. Take automobiles: About half of us plan to buy new cars next year. 26% of us will buy high-priced cars, 52% medium-priced.



## More about us Business Week subscribers...

Take color TV: A very high 17% of us either own color TV sets or plan to buy them in the next 18 months. If 17% of all U. S. families had such plans, set makers would have to produce more sets next year than they now hope to be making in 1965!



And travel: We move around fast and often. 78% of us travel on business, averaging 17 trips a year. 80% of us use the airlines. Business and/or pleasure takes 17% of us overseas, and usually the family goes along (wife and two kids on the average, but 31% of us have three kids or more).

Figures from Business Week Audience Study, 1956; color TV production estimate from Electrical Merchandising.

YOU ADVERTISE IN BUSINESS WEEK  
WHEN YOU WANT TO INFLUENCE MANAGEMENT MEN









# Wrap it up ...in Kraft!

*New St. Regis Machine will turn out 50,000 square feet of paperboard a minute to meet growing demand for paper products*

Bags, cartons, boxes, wrapping paper, containers of infinite variety . . . the demand is so tremendous you'd think the whole world were being wrapped in paper.

To meet this voracious appetite for paperboard, St. Regis has installed some miracles of machinery at its mill in Jacksonville, Fla. A machine the length of three and a half city blocks will soon be turning out an additional 1,000 tons of kraft paperboard a day—50,000 square feet per minute.

This, in addition to the already existing facilities, will triple the total kraft production of the Jacksonville mill.



Plan ahead for your paper requirements in 1957 and 1958. We will be glad to discuss how our new production can fit into your plans. St. Regis Paper Company, Dept. B-2, 150 East 42nd Street, New York 17, N. Y.

**St. Regis**  
**PAPER COMPANY**  
150 EAST 42ND STREET, NEW YORK 17, N. Y.

# BUAER'S NEW AVIONICS DIVISION MEETS ELECTRONIC WEAPONS NEEDS OF NAVY AIR ARM



U. S. Navy Photo

This is one of a series of ads on the technical activities of the Department of Defense.



**FORD INSTRUMENT COMPANY**

DIVISION OF SPERRY RAND CORPORATION

31-10 Thomson Avenue, Long Island City 1, New York  
Beverly Hills, Cal. • Dayton, Ohio

## ENGINEERS

of unusual abilities can find a future at FORD INSTRUMENT COMPANY. Write for information.

Brand new in the Navy Bureau of Aeronautics, the Avionics Division is responsible for all aspects of research and development of electronic fire control and weapons launching equipment for Navy aircraft and guided missiles. This Division deals daily with problems undreamed of as recently as World War II. To ensure that our Navy air arm will continue to be the most effective and ultra-modern in the world, it plans in terms of 10, 15, or 25 years hence. Its personnel must think in terms of Mach 10 speeds or altitudes of 20 or more miles.

This vital R & D mission, which was formerly accomplished by the joint efforts of Armament and Electronics Divisions, has been merged in the Avionics Division to include a wide variety of electronic functions. Among these are ground station telemetering and instrumentation; guidance systems; warheads; fusing and launching of guided missiles; fighter attack systems; airborne early warning systems, and many others.

To coordinate the many programs under its jurisdiction, the Division has established a "Project Manager" system of organization. This system provides maximum streamlined operation and facilitates industry contacts as well. The personnel of the Avionics Division thus are enabled to develop with maximum facility the incredible electronic equipment needed by today's and tomorrow's aircraft and missiles. With their special knowledge and far seeing outlook, they will make certain that the new higher speeds, altitudes and ranges of aircraft are utilized to full effectiveness.

◀ FJ-3 Fury goes aloft from one of the after catapults of the U.S.S. Forrestal. An F2H-3 Banshee is in the foreground. Electronics developed by BuAer's Avionics Division provides planes such as these with their highly effective weapons and control systems.



▲ Engineer at Ford Instrument Company opening salt spray chamber in which equipment for BuAer is being subjected to environmental test.

# PERSONAL BUSINESS

BUSINESS WEEK

FEB. 2, 1957



"Ham" radio makes plenty of sense as a hobby—for you, for your wife, for teenage children. It's practical; it's a lot of fun and a lot more sociable than you might think; it can be surprisingly inexpensive; it even has a community service side that gives the hobby a solid, worthwhile purpose.

And all the mechanical ability you need—at least at the beginning—is about enough to properly operate a television set.

You can start in a small way—with as little as \$150 worth of factory-made equipment—and soon become a full-fledged radio amateur, **broadcasting over short wave from your home.** Hams duly licensed by the Federal Communications Commission include kids under 15, housewives, elderly people, and shut-ins—who have found a way to have a circle of friends without going out of the house—and a great number of highly active business and professional people.

Among these last on the ham list are Harry F. Vickers, president of Sperry-Rand Corp.; Ernest Henderson, president of Sheraton Hotel Corp.; Clyde Hendrix, vice-president of Pillsbury Mills; Gen. Curtis E. LeMay, chief of the Strategic Air Command; and Herbert Hoover, Jr.

On the social side, you get to know fellow hams both in person and over the air—and it's astonishing how airwave friendships last. You can join amateur radio clubs, local and national (for instance, the American Radio Relay League, West Hartford, Conn.). The clubs give you a chance to be very active.

As for service, you can take part in one of the ham "nets" that handle communications for the civil authorities in times of emergency or disaster.

Civil Defense, the Red Cross, and other outfits make wide use of the hams, who were a big help in the Connecticut floods last year, and are now helping keep contact with the Antarctic expeditions.

Ham radio doesn't nail you to one spot—you can install it in your car or aboard your boat. Wherever you go in the U.S., by land or water, you're entitled to broadcast.

Getting started requires just two things: (1) a license, issued by the FCC in Washington if you pass an exam, and (2) the basic equipment of the trade—a receiver, a transmitter, and an antenna. You can pick up minimum components for as little as \$100. Or you can go as high as about \$2,600 for a packaged factory-built station. More money means more power.

Your first FCC exam is for a Novice License. To qualify you have to send and receive Morse code at five words a minute and pass a routine written test. With your license, "call letters" are assigned to your station; you can go on the air with your gear for one year. Then you take a stiffer exam for a General License; the Morse code speed is now 13 words a minute and you need a bit more technical knowledge. But don't worry—almost everybody who has gone this far passes. The General License is "permanent," which means it has to be renewed every five years.

You can get code practice from special beginners' sessions broadcast over short wave by the ARRL from West Hartford. So it's a good idea to buy your receiver when you start boning up for the test. Also, the chances are a ham club in your town gives code lessons for beginners.

For the written exams, get a booklet called "The Radio Amateurs License Manual," published by ARRL (50¢).

Ham equipment—buying it, operating it, maintaining it—is a big field. For a starter, here are a few ideas:



# PERSONAL BUSINESS (Continued)

BUSINESS WEEK

FEB. 2, 1957

• **Receivers.** Most hams buy factory-made receivers; there's a wide selection on the market in a range from \$60 to \$600. If you nose around in an electronics supply house, you may come up with a good used bargain.

• **Transmitters.** You can get a factory unit, or a do-it-yourself kit that will leave you with a finished-looking assembly. Transmitters are rated by their power output, in watts. With a Novice License, you're limited to 75 watts; a General License entitles you to 1,000 watts. Under ideal conditions, a low-power unit (costing as little as \$30) can contact hams all around the world. Of course, you can do a much better job of broadcasting with a high-power outfit (up to \$2,000).

• **Antennas.** For good results, you need an outdoor antenna; attic setups are seldom efficient. A popular type is the straight wire antenna, like an old-fashioned radio aerial. Strung from house to garage, it can cost as little as \$5. Ideally, the antenna should be higher than any obstructions—houses, trees, power lines. If this means you have to have a tower, the cost will run from \$50 to \$300.

**Amateur television**—very advanced stuff, electronically—is a possible ham sideline, though it's still mostly on a trial and error basis. Cost: about \$200 and up. **Radioteletype** is another twist for advanced hams.

But for a common-sense, beginner's start, write to the ARRL for the booklet, "How to Become a Radio Amateur" (50¢).

—•—

If you're taking your camera on a winter vacation—maybe north for skiing or south for sand and sun—here are some things to remember:

**North**—Before you start, put neat's-foot oil on the case to protect the leather. When you get into bitter cold, avoid sudden changes in temperature—indoors to outdoors. Keep the camera under your clothes if the change is severe, to avoid condensation on the lens and possible cracking. If condensation forms on the lens, let it clear before taking a picture. If the moving parts are hard to manipulate, your camera is freezing. **Don't force them—you may strip the gears.**

If you expect to do much picture taking in the bitter cold, have your camera winterized by a professional. This costs \$20 to \$50.

**South**—Protect your camera from sand, salt water spray, and direct sun. Always use a lens cap—direct sun, shining into a lens, can actually burn a focal plane shutter in a few seconds.

**Use filters for pictures on the beach (or in the snow)** to pick up the tone qualities. For black and white, use a K-2 (medium yellow)—for all normal purposes—and open the diaphragm one full stop. For color, use a sky filter—no exposure correction necessary. Compensate for glare on sunlit sand or snow (which produces inaccurate exposure-meter readings) by reducing the lens aperture one full "f" stop for black and white, and one-half "f" stop for color.

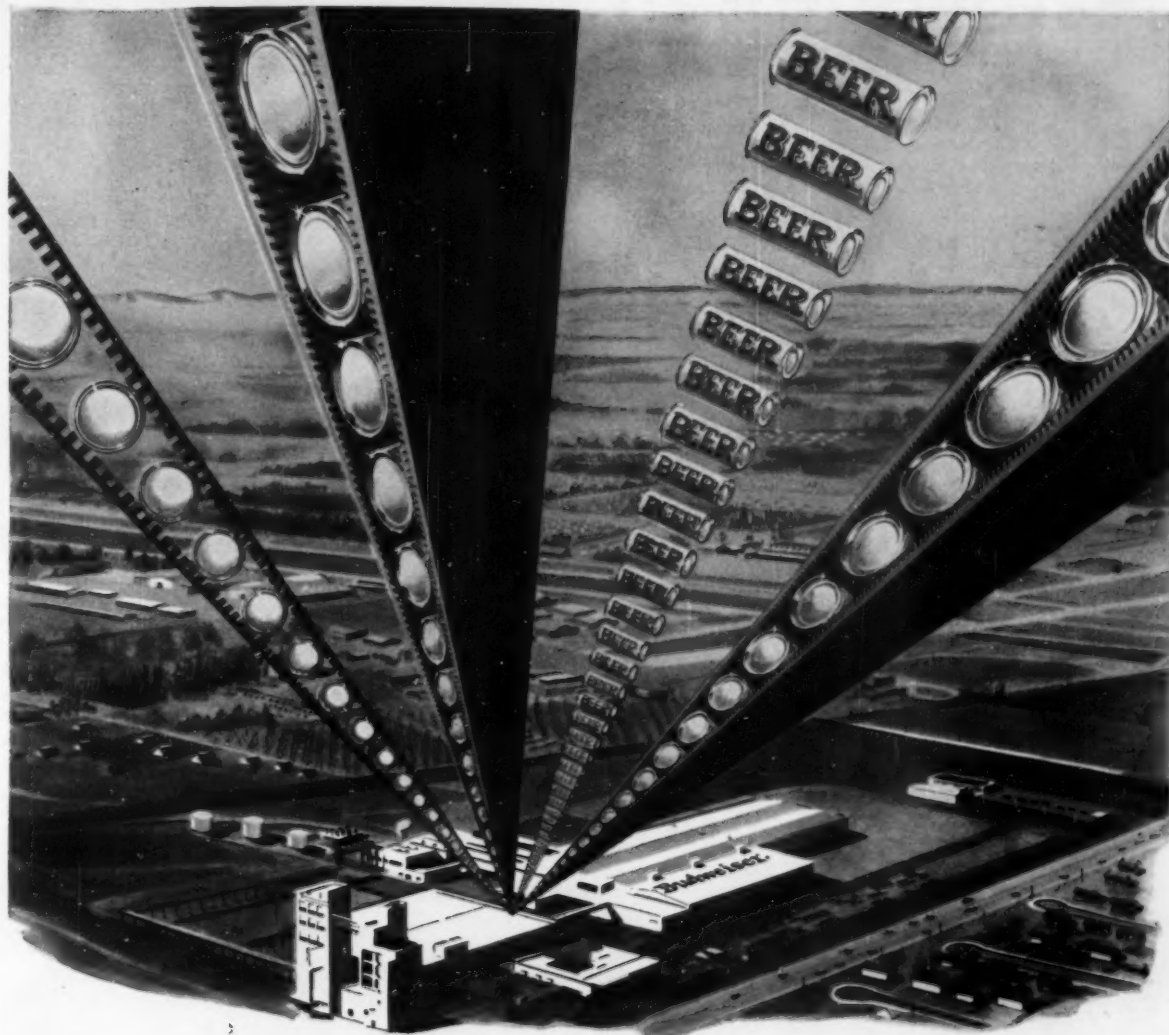
A plastic bag is a good way to protect your camera in any climate.

—•—

**Manners and modes:** A smaller, quieter, and more powerful auto air conditioner for field installation is on the market (John E. Mitchell Co., Dallas). . . . You can get free do-it-yourself instructions for building a cabana, an indoor "apartment," and other dream houses for your family dog (Carnation Farm, Seattle). . . . The 1957 Inaugural Medal, with portraits of the President and Vice-President, is available from the Inaugural Committee, 1022 15th St., N. W., Washington, D. C. (\$3.50).



**STEEP GRADE CONVEYOR BELTS**



## Hoisting Millions of Beers—with Never a Slip

"No other belting could have accomplished better performance than U. S. SteepGrade has," says Mr. L. S. Miller, manager of this giant Anheuser-Busch brewery. "It's nothing short of spectacular."

Millions of 16 oz. cans of beer are lifted at a 90° angle on vertical can conveyors, each equipped with a pair of U. S. SteepGrade Conveyor Belts. The one-pound cans come from the pasteurizer slippery and wet, and are conveyed straight up, and discharged onto an incline to the carton-filling machine. Cans don't slip at all, even when the machines are stopped.

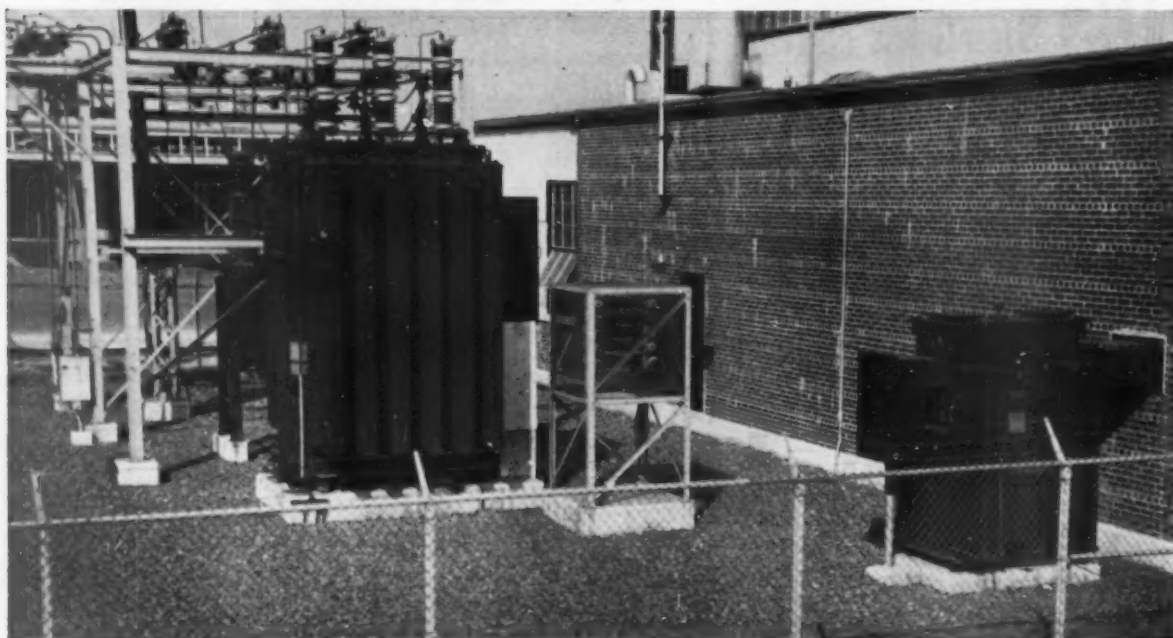
SteepGrade's exclusive "gripper cleat" construction eliminates bottlenecks; cans are lifted rather than rolled up. Because belt speed and pressure on cans are considerably lessened, damage to cans and smearing of print has been eliminated. Also this more efficient operation saves electric power and lengthens belt life.

For diversified materials handling problems involving sharp ascents and descents, these belts—plus expert engineering service—are available at any of the 28 "U. S." District Sales Offices, at selected distributors, or write us at Rockefeller Center, New York 20, N. Y.



Mechanical Goods Division

**United States Rubber**



Wagner Power and Unit Substation Transformer installation at Air Reduction Sales Company—Riverton, N. J.

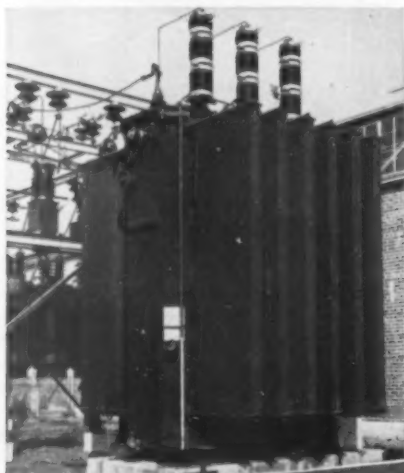
## Taking raw materials from the air

The Air Reduction Sales Company manufactures liquid products direct from the atmosphere—products like oxygen, nitrogen, argon, and neon. In some cases, the liquids are then converted into gases for industrial and medical use.

Such scientific sleight-of-hand in transforming air into product is made possible on a mass-production basis only through the use of electricity... the source of power for all modern production.

Wherever electric power is used, Wagner Transformers efficiently and dependably handle their never-ending job of supplying proper voltages for every purpose. At Air Reduction's Riverton, New Jersey plant, this power is supplied through Wagner Transformers.

Let a skilled Wagner engineer discuss your transformer needs with you. Call the nearest of our 32 branch offices, or write us direct.



This 7500 kva Wagner Power Transformer supplies power for Air Reduction's Riverton, N. J. plant.

The 1000 kva Wagner Unit Substation Transformer steps down to 480 volts for distribution in the plant.



BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

**Wagner Electric Corporation**  
6460 Plymouth Ave., St. Louis 14, Mo., U.S.A.



# Business Sits for Its Portrait

More and more companies are writing—or having outsiders write—their corporate histories. Most business biographies are still “puff” pieces. But there is less reluctance today to giving historians and economists a peek at the company archives—and the skeletons in the closet.

THE BULGING shelves of books in the picture right—all “histories” of American business organizations—attest to a new phenomenon: the willingness of the corporate body to point to itself, publicly and pridefully, and say in essence, “Hey, look at me.”

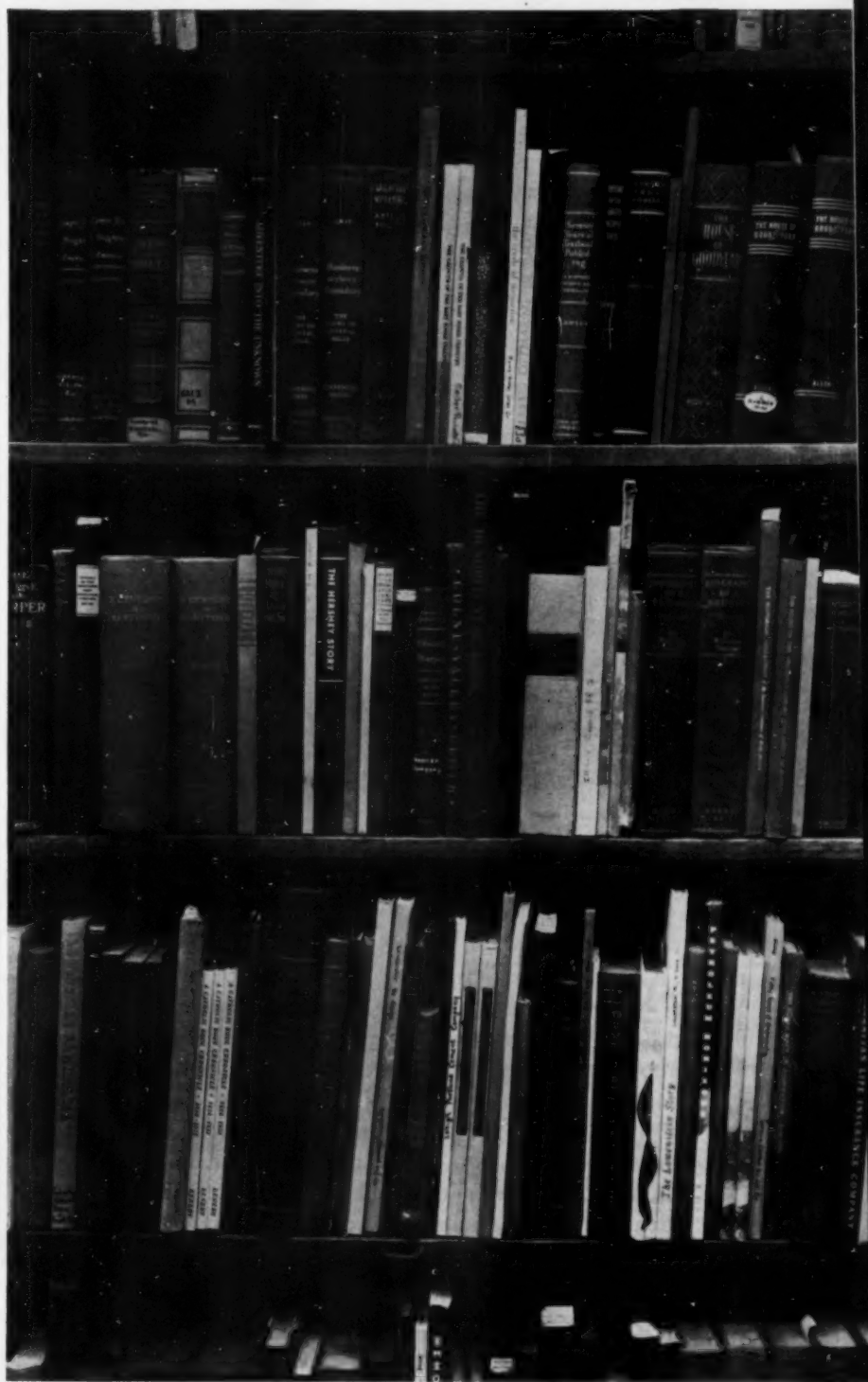
In view of the hordes of public relations counsel employed by most businesses to get or keep their names before the public, that statement would seem naive. But there's a sharp distinction between the public relations approach—essentially a tool, to sell something, whether it's a product, a stock issue, or a new corporate head—and the company history, which is, to greater or lesser degree, the clinical detailing of what a company is and how it got that way.

• **Rising Tide**—Today, more and more corporations are sitting still for their portraits. The vast majority still are flattering images, rather than true likenesses. But the true likenesses are getting more common—even to the point of allowing some of the skeletons out of the closets.

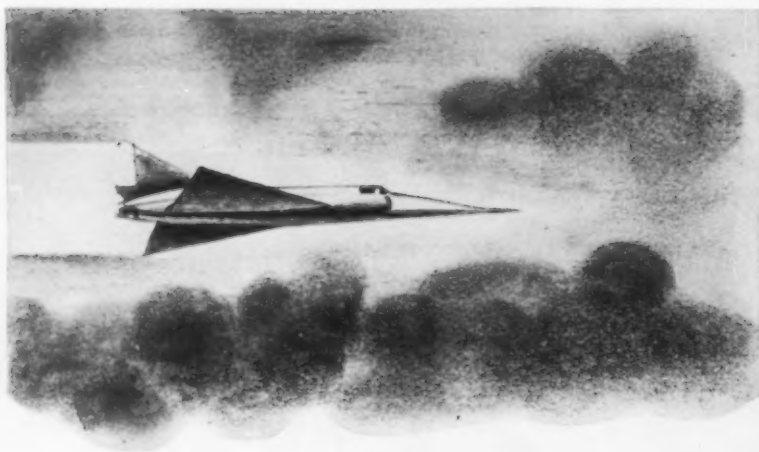
Though not yet a flood, the tide of business history is rising. Dun & Bradstreet, Inc., whose library collects U.S. business biographies, added 782 volumes to its collection between Sept. 1, 1949, and Jan. 1, 1956. Before 1949, it had accumulated only 500 altogether.

• **Greater Respectability**—And within the last decade, the company history has lost much of its tarnish and become more respectable. In New York, the nonprofit Business History Foundation, Inc., sponsors studies of companies in which it has some interest. Industrial groups—the chemical, petroleum, and forestry industries among them—are organizing agencies to collect the records and tell the stories of their collective lives. Harvard University offers a post-doctoral fellowship in the writing of corporate histories, and courses in the techniques of the business history are being taught at a number of other universities.

Part of the reason for the surge in company histories is a growing popular



**BUSINESS PORTRAITS**—in the form of books and brochures—are spreading out over library shelves. Close to 800 of them appeared between Sept. 1, 1949, and Jan. 1, 1956.



## *Break through the Weather Barrier*

at the

## **13<sup>th</sup> INTERNATIONAL HEATING & AIR-CONDITIONING EXPOSITION**

(formerly the International Heating and Ventilating Exposition)

### **INTERNATIONAL AMPHITHEATRE —CHICAGO**

**February 25—March 1**

Under the auspices of the American Society of Heating and Air-Conditioning Engineers, and in conjunction with their 63rd annual meeting.

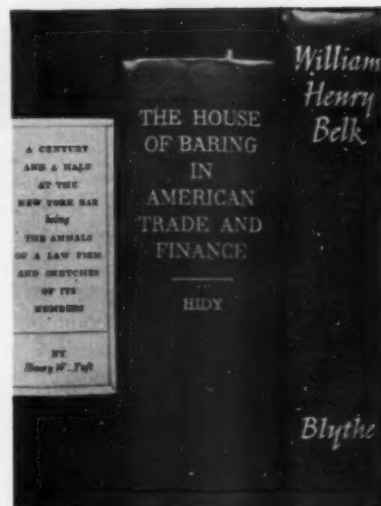
**A**T Chicago, thousands of executives and their engineers in the heating, ventilating and air conditioning industries will meet to buy, sell and talk about the newest and most efficient indoor weather control equipment. Nearly 500 leading companies will exhibit at the largest exposition of its type in the world. Here you can learn how to break through the weather barrier in your business. You'll find new ideas for applications in all types of business.

*Write today for advance registrations to:*

**13TH INTERNATIONAL HEATING & AIR-CONDITIONING EXPOSITION**

480 Lexington Ave., New York 17, N. Y.

Management: International Exposition Co.



interest in business itself. In the last couple of years, that's been reflected in a rash of novels, plays, and movies with business and businessmen as the sympathetic heroes.

• **Changing Attitudes**—And business lately has been casting off some of the psychological shackles that made it avoid the public eye in earlier generations. Prosperity has erased the public image of "big business" as an avaricious monster, a new generation of managers has stopped being defensive about the reputation of its "robber baron" ancestors—and has simultaneously shed the traditional attitude of "what we do is nobody's business but ours."

Most of the histories are still far from definitive—only about 10% of the total issued since the end of World War II are book length. The vast majority are pamphlet-sized brochures. Of the approximately 80 book-length stories, only about a score were prepared by economists or historians.

• **Rose-Colored Pictures**—And most of them are still what the writing trade calls "puff pieces"—designed to "glorify" current and past managements. Whether written by professional writers specially commissioned to do the job, or by a company employee detached from his regular duties, they're usually blue-penciled by the company hierarchy. Result: a rose-colored picture of a company that somehow never made a mistake or a questionable decision throughout its existence.

But the direction has been changing. More and more companies are throwing open their files to professional historians or top level writers, and giving them carte blanche to tell the story as they see it, as the Ford Motor Co. did with Prof. Allen Nevins of Columbia University for his "Ford: the Times, the Man, the Company," or Southern Pacific, for B. C. Wilson and Frank J. Taylor when they wrote "Southern Pacific, the Roar-

**NO  
SLIDE!**



**NO  
SLIP!**



**NO  
SWERVE!**



**when POWR-LOK protects your vehicle and your life!**



**DANA**

POWR-LOK is a revolutionary differential that permits the rear axle to automatically deliver the greatest driving force to the rear wheel that has the best gripping traction.

POWR-LOK ends slipping on ice or wet hills and pavements if either rear wheel can catch hold.

POWR-LOK ends slipping, sliding and getting stuck in mud or sand if either rear wheel can catch hold.

POWR-LOK ends dangerous car swerve and unbalance resulting from "wild wheel" hop and spin on rough, bumpy roads.

Your new car or light truck will be *safer*, more dependable under *all* driving conditions, if it is equipped with a Spicer Thornton POWR-LOK Differential. POWR-LOK is available in several 1957 models. Demand it in the next car or light truck you buy.

Spicer Axles, and the Thornton POWR-LOK Differential are products of Dana Corporation, operating 10 modern plants in strategic locations.

Write for descriptive Dana booklet.

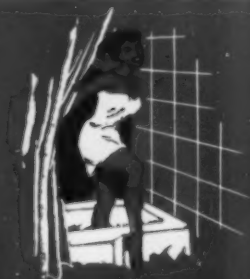
**DANA CORPORATION • TOLEDO 1, OHIO**

**SPICER PRODUCTS:** Transmissions • Universal Joints • Propeller Shafts • Axles • Torque Converters • Gear Boxes • Power Take-Offs • Power Take-Off Joints • Rail Car Drives • Railway Generator Drives • Stampings • Spicer and Auburn Clutches • Parish Frames • Spicer Frames • Forgings

Spicer Axles and POWR-LOK Differentials are also manufactured in Canada by Hayes Steel Products Limited, Merriton, Ontario.



Whether it's **BATHTUBS**  
or **BUTTER**  
**KREOLITE**  
**Wood Block Floors**  
Serve Industry Better



The maintenance of historical records requires a wide range of efficient production operations. Kreolite Floor is the American Standard solution. It has demonstrated that ability to last over a fifteen year period.



Spaciousness is a need of the modern home. Kreolite Wood Block Floors have the equipment and many others for more than 100 years.

Why Kreolite Wood Block Floors in plants making entirely different products? The answer is easy, if you know about Kreolite's many superior features.

Ruggedly durable, but kind to feet with their cushioning resiliency, they are cleaner because they are dust-free when finished with Kreolite Jennite. They are safer too, because they are spark and skid-proof. Kreolite Wood Block Floors are also most economical to install and maintain.

Write today about complete specification and installation methods that can save you important money.



THE  
**JENNISON - WRIGHT**  
**CORPORATION**  
TOLEDO 9, OHIO

For gym floors and vocational shops,

**KREOLITE FLEXIBLE STRIP\***  
flooring is tops.

\*Made of Kiln Dried End Grain Southern Yellow Pine Wood Block in Natural Color

**KREOLITE WOOD BLOCK FLOORS**

Railroad Cars and Industrial Trucks, Piers, Bridges and Truck Lumber

ing Story of a Fighting Railroad." And the historians now are panting to get at more of them.

For centuries, religious, military, and political institutions enjoyed far more prestige than commerce. Even economic historians have concentrated on general trends rather than specific business enterprises. Business records themselves have often been inaccessible or inadequate. Too often the archives of a company consisted of the hind-sighted memories of its leaders. But both historians and companies have come to the realization that individual corporate businesses have played major roles in the development of their regions, and of the entire American industrial economy of today. "What a story the one on U.S. Steel would be," sighs one historian.

In effect, a company history is a condensed version of its archives. The single volume, in theory, places at management's disposal the company's experience in marketing, finance, engineering, labor relations. In practice, the facts plucked for public exposure rarely serve as a valid guide.

• **Sponsors**—But as interest in business history has grown, organizations to meet its needs have sprung up. For instance, the Business History Foundation—founded originally by two Harvard Business School professors, Dr. N. S. B. Gras and Henrietta M. Larson—directly sponsors histories of major companies. Two of its current projects: Standard Oil Co. (N. J.) (in four volumes, two of which have already appeared) and the Great Northern Ry. (in two volumes).

Though companies that are being researched do underwrite most of the cost, the work is still commissioned and controlled by the foundation. Harvard and New York University, among others, directly sponsor a series of corporate histories of both old and current companies.

These organizations and universities try to turn out objective scholarly works, divorced from censorship or influence by the companies concerned. But even then, not all the answers are available.

For instance, Vaughn Davis Bornet, a California historian, suggests that Nevins and his collaborator, Frank Ernest Hill, may not have had all the facts when they wrote the first volume of their Ford study. He points out that the published memoirs of one-time Ford executive Harry Bennett are in several instances at odds with the Nevins-Hill work, and suggests that unless Bennett's story "is refuted . . . the Henry Ford of Nevins' and Hills' next volume will be of necessity a strikingly different man from the figure portrayed . . . in volume one."

• **Hero Worship**—Like the Ford study,



## What kept her from falling apart?

**The Statue of Liberty** was once in danger.

Not from a foreign foe. Not from a crackpot's bomb. This peril was less exciting . . . *but no less destructive.*

It was corrosion — corrosion that had been at work ever since Liberty first raised her torch above the salty waters of New York harbor.

**Relentless and merciless** in its attack, the acrid, smoggy sea air had loosened and weakened the rivets holding the statue's huge sheet metal plates together. Miss Liberty was dangerously close to falling apart at the seams!

Something had to be done, that was clear. But *what?* Re-riveting wasn't practical. Too many hard-to-get spots in the statue.

**This problem** was put to an expert — a fastenings manufacturer. His solution: Self-tapping screws of Monel® nickel-copper alloy. Monel alloy to keep corrosion at arm's length. And self-tapping screws to pull the plates up snug and tight — from *outside* the statue!

So 65,000 self-tapping Monel alloy screws were used to "run up the seams" of Miss Liberty's robes. The job was done in 1938 . . . easily . . . neatly. And from the looks of these corrosion-resisting fastenings today, Miss Liberty's worries are over for a long time.

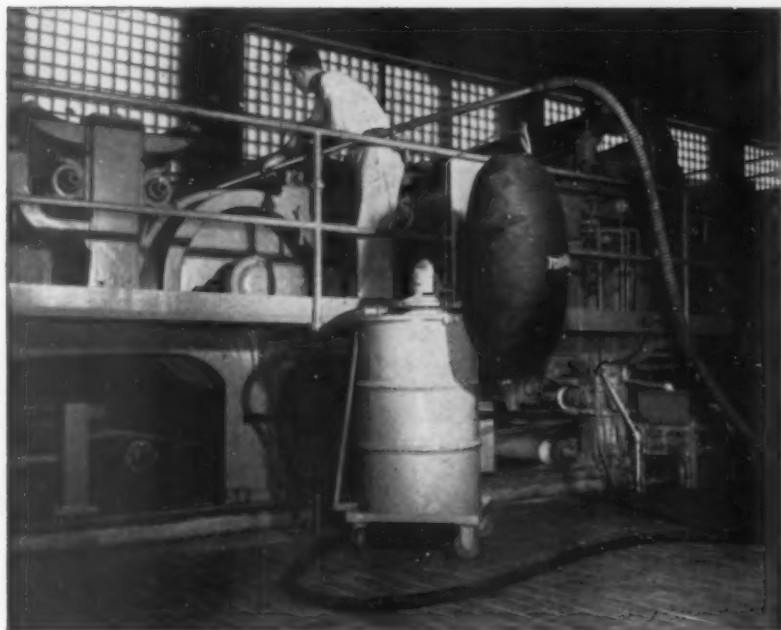
**Do you have a metal problem?** One that involves corrosion . . . stresses . . . fatigue . . . high or low temperatures . . . or some other unusual factor? Suppose we get together and talk it over. Monel alloy — or one of our other Inco Nickel Alloys — may be just the metal *you* need.

\*Registered trademark

**THE INTERNATIONAL NICKEL COMPANY, INC.**  
67 Wall Street New York 5, N. Y.



**INTERNATIONAL NICKEL**  
*Nickel Alloys Perform Better, Longer*



## TORNADO CUTS MAINTENANCE COSTS IN THE PAPER INDUSTRY TOO!

Industry after industry has found the Tornado Series 80 Vacuum Cleaner will save them maintenance time and money.

For example, in the photo above, Series 80 motor unit is used as a Jumbo Conversion unit to clean paper machine dryers. Using 48 feet of hose, this powerful (325 m.p.h.), and versatile unit makes short work of a tedious cleaning operation—helps maintain top quality paper, too!

Do you have a tough cleaning job? Or maybe you'd like to cut costs. Whatever it is, the Series 80 Vacuum Cleaner can solve your cleaning problems. Whether you're picking up dirt, water, oil or chips you'll do it better, faster with a Tornado Series 80. And it converts quickly to six different cleaners. Have an on-the-job demonstration today!

Picks up oil and other accumulated liquids under machine without any conversion.



WRITE FOR CATALOG 660 NOW!

**BREUER ELECTRIC MFG. CO.**  
5104 North Ravenswood Avenue Chicago 40, Illinois

many company histories are keyed to the life of the firm's founder. And some of these, perhaps, are more susceptible of worshipful treatment than the general company stories.

One such book made the rounds of several publishers before it was finally accepted for publication. The critical reviews were rough. Says Robert Shiff, president of the National Records Management Council: "If you want a eulogy, you won't get a business history. It isn't necessary to get a guilt complex about what father did as founder of the business. When you assemble all the skeletons, they take on flesh and blood and become real people—organizers, fighters, dreamers, people who made mistakes but who created businesses that grew and survived."

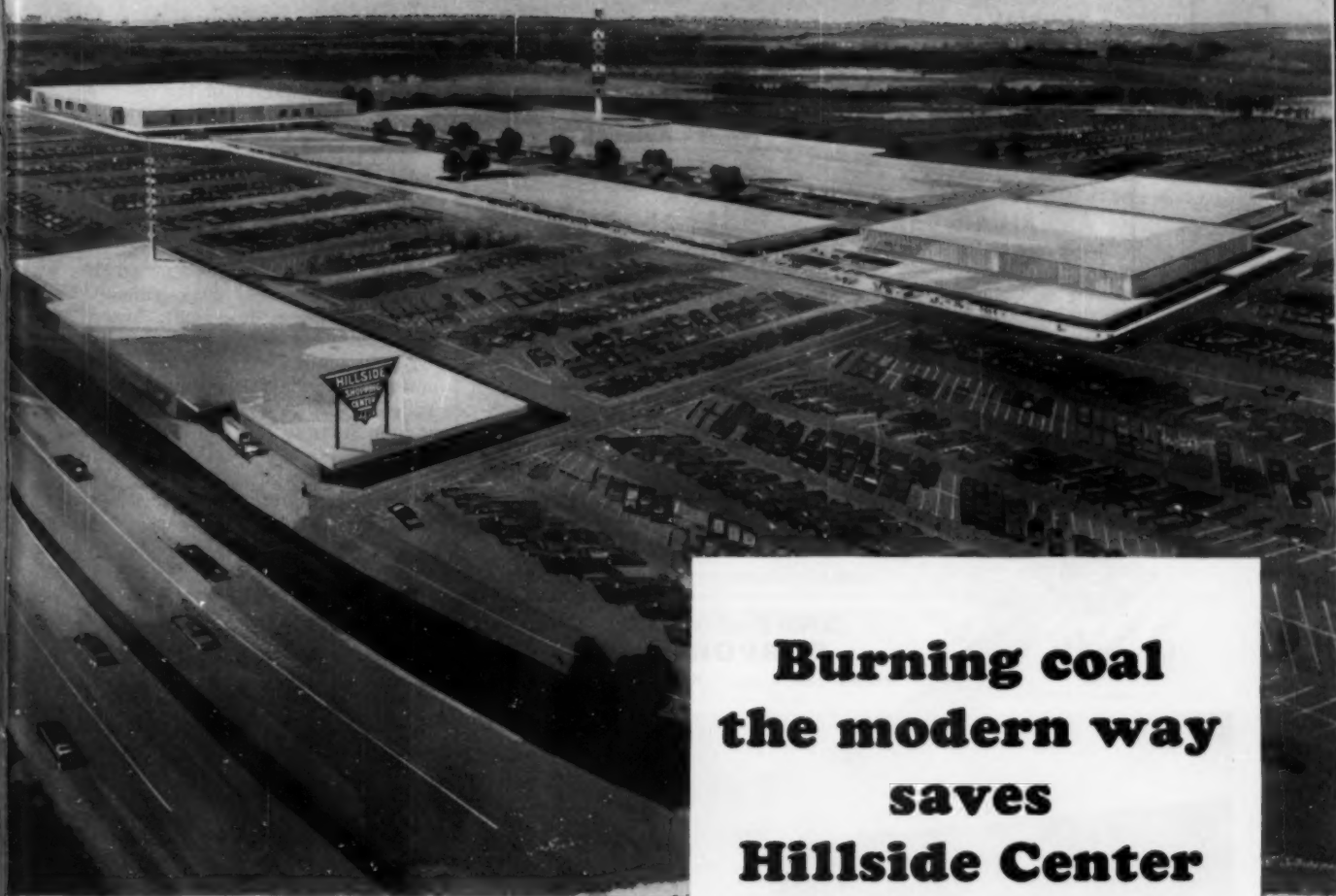
Certainly, the slanting is less in any corporate biography written by the professional historians. They've got to be honest and impartial, says Columbia's Nevins, since the historian is laying his own reputation and stature on the line. But one flaw, he concedes, to the more scholarly works—they frequently aren't very readable. "No one would sit down for a cozy evening of reading business history," he adds wryly.

• **Writing Problem**—Therein lies one of the biggest problems in the whole subject of the corporate history. A few of the more scholarly biographies are well written—such as some by the late Marquis James (*Biography of a Bank—The Story of Bank of America*), Roger Burlingame (*Of Making Many Books*), and Nevins—and have picked up substantial public sale in book stores to the general public. But most can't make it on their own—whether serious studies or bright and shallow anecdotal brochures—and are distributed free by the subject company.

That factor alone, suggests Dr. John K. Galbraith, Harvard economics professor, makes most of the corporate literature just plain bad. Because, no matter how arrangements are made, the biography is subsidized. He says it is "produced in total indifference to the reader and total neglect of his highly defensible curiosity as to what really went on." At their best, Galbraith adds, there's a tendency to ignore the unsavory, unpleasant or foolish things that happened—and in trying to make their protagonists look sweet and moral, they also make them look somewhat stupid—something they weren't.

• **Made-to-Order "History"**—For the shorter, slicker jobs, New York printing houses that offer to write, design, print, and distribute "company histories" actually suggest ways to slant the story: Emphasize quality of service, length of service, service in the public interest, commemorate personalities, emphasize leadership in the industry,





## **Burning coal the modern way saves Hillside Center \$26,000 a year**

### **Consult an engineering firm**

Designing and building hundreds of heating and power installations a year, qualified engineering firms can bring you the latest knowledge of fuel cost and equipment. If you are planning the construction of new heating or power facilities—or the remodeling of an existing installation—one of these concerns will work closely with your own engineering department to effect substantial savings not only in efficiency but in fuel economy over the years.

### ***facts* you should know about coal**

In most industrial areas, bituminous coal is the lowest-cost fuel available • Up-to-date coal burning equipment can give you 10% to 40% more steam per dollar • Automatic coal and ash handling systems can cut your labor cost to a minimum • Coal is the safest fuel to store and use • No smoke or dust problems when coal is burned with modern equipment • Between America's vast coal reserves and mechanized coal production methods, you can count on coal being plentiful and its price remaining stable.

The new Hillside Center, Chicago, Ill., is one of the country's largest and most modern shopping centers. Situated on a 59-acre site, it contains over 70 stores and offers parking space for nearly 5,000 cars. When Hillside Center was planned, exhaustive studies were made of prospective fuels . . . and it was decided to burn coal the modern way. For one thing, the initial economy of the mechanical system indicated coal. The cost of a complete coal system—boilers, coal and ash handling equipment, controls, etc.—fell within budget limitations. And, in view of limited space, the compactness of the system was an additional inducement. Finally, boiler room labor costs are at a minimum and actual operation savings with coal, compared to other fuels, is estimated at \$26,000 a year.

*For further information or additional case histories showing how other plants have saved money burning coal, write to the address below.*

**BITUMINOUS COAL INSTITUTE**  
Southern Building • Washington 5, D. C.

**Snap-on SUGGESTED**

**special  
Impact sockets ...**



**AMERICAN CAR AND FOUNDRY ADDS  
53 work shifts per socket—and more**

Power impact sockets were lasting about 12 shifts on a temporary bolting operation while fabricating railroad car spines. Snap-on sales engineer, C. S. Bracken, suggested switching to a specially heat-treated Snap-on socket.

Result: now after 65 shifts, the Snap-on sockets have shown no visible sign of wear. Conservatively, changing to Snap-on sockets will save American Car and Foundry, Division of ACF Industries, Inc.,

several hundred dollars per year.

**What's Your Plant Tool Problem?**

Production and maintenance problems involving wrenches and hand tools are welcome challenges to the Snap-on tool specialist. He's eager to help you get the most from tools your company uses. Call him any time.

Complete Snap-on Industrial Tool catalog will be sent to your purchasing department on request.



\*Snap-on is the trademark of Snap-on Tools Corporation.

**SNAP-ON TOOLS  
CORPORATION**

8100-B 28th Avenue • Kenosha, Wisconsin



**WOOD PANELING—A HANDSOME OFFICE NEED NOT BE EXPENSIVE**

If your office isn't as handsome as this one—and not many are—it easily could be. For beautiful Weldwood Paneling is as practical a material for remodeling as it is for new construction. Actually costs less than other types of wall covering. Weldwood Paneling ends the need for redecorating—forever.

There are dozens and dozens of distinctive woods and types of paneling to choose from. (Above is walnut plank-effect paneling.) And we've saved the best news for last: prices of Weldwood Paneling start from about \$24 for a full 12-by-8-foot wall. Interested? Write for more information.

**Weldwood® PANELING**



UNITED STATES PLYWOOD CORPORATION, Dept. BW 2-2, 55 W. 44th St., New York 36, N. Y.

**"... how much a history will  
cost depends on the job the  
company wants done ..."**

**STORY starts on p. 129**

variety of product or service, size of the company, growth of the company, and emphasize management's methods of conducting the business.

And these printing houses list these advantages for putting out such "histories." Build reputation and good will; create actual sales, inform investors; help salesmen, brokers, and retailers; stimulate employees, aid the company's regular sales promotion.

Few companies expect any "history" to do all these things—and most have far more limited aims in mind in commissioning a book or pamphlet. But many nevertheless are spending substantial sums to present their story to the public.

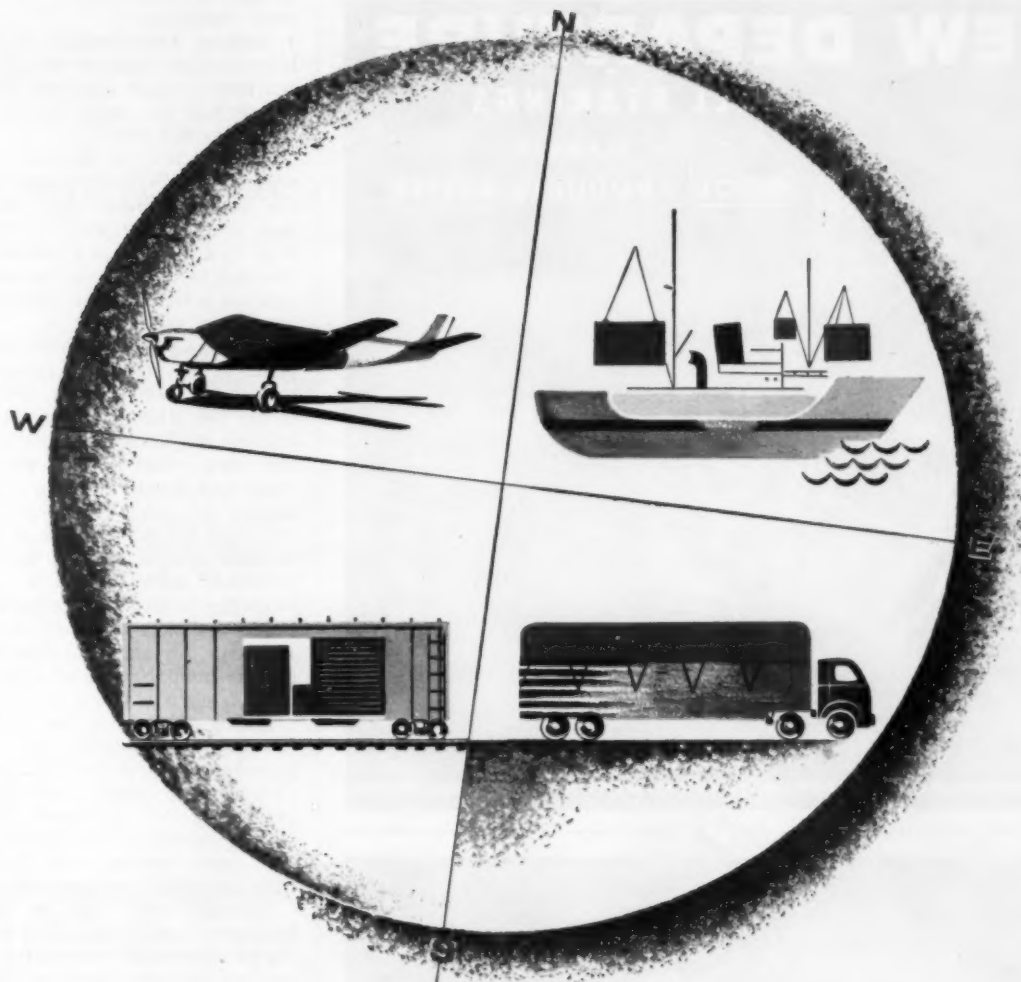
• **Cost**—A few years ago a big West Coast company published a history to commemorate an anniversary. Total cost of the project, including printing 75,000 copies for complimentary distribution and the author's fee came to \$250,000.

Its purpose, says an officer of the company, was threefold: (1) to have some of its history collected in a permanent form, (2) to meet demand at universities for factual information about the company, and (3) to promote a better understanding of its current policies and activities.

Harvey Firestone, Jr., chairman of Firestone Tire & Rubber Co., says his company's 50th anniversary history "The Firestone Story" was written partly to preserve the story of the problems that confronted management and how it tried to solve them. The book was distributed to employees, stockholders, all libraries in the U.S. and abroad, Firestone dealers, and banks and other companies it did business with. What's more, the book had a store sale of several thousand copies, unusually high for a corporate story.

Occasionally, a company will be surprised to find an author and publisher already joined to tell its story on their own. Southern Pacific was one such. The company cooperated in the research, but neither commissioned nor helped push the book. But it did buy almost 15,000 copies for distribution to employees, the press, and others in its service area—about \$23,000 worth at wholesale prices.

Just how much a history will cost depends on the job the company wants done. A short brochure for publicity or sales promotion purposes can usually be turned out by the company staff, with printing a comparatively minor



OVER ALL...

IT'S *Coverlight*

Vulcan's neoprene-coated nylon is ounce for ounce the toughest coated fabric available. Lightweight and durable. 100% waterproof. Resistant to acids, mildew, rips and tears. Coverlight remains pliable under extreme temperature conditions. Is easy to handle and work with (can be sewn or cemented). It wears better than ordinary coverings under the most grueling conditions.

FOR OVER-ALL PERFORMANCE  
UNDER ALL CONDITIONS OF WEATHER  
AND WEAR, COVERLIGHT ASSURES  
THE ULTIMATE IN PROTECTION.

Vulcan distributors and fabricators are always ready to serve you. Write to Dept. BW-1.

Another  
**REEVES**  
**VULCAN**  
RUBBER PRODUCT

REEVES BROTHERS INC. • Vulcan Rubber Products Division • 54 Worth St. • New York 13, N. Y.



# NEW DEPARTURE

## BALL BEARINGS

MAKE  
GOOD PRODUCTS BETTER



- Permit Higher Speeds
- Reduce Maintenance
- Increase Accuracy
- Resist All Loads
- Simplify Design
- Reduce Friction
- Prevent Wear

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONN.



## Cooler gloves are aid to safety

When warm Spring days come, employees tend to become "careless" about wearing work gloves. The nuisance hand injuries that result are costly. To combat this problem, many plants supply or make available lighter, cooler, palm-coated gloves for operations where palm-coating gives ample protection. The fabric backs provide welcome ventilation while the palm coatings, of rubber, plastic or Neox neoprene, protect from cuts and abrasion. They so far outwear ordinary canvas or leather palms that cost savings are often astonishing.

**Free Test Offer to Employers:** Edmont makes a dozen types of palm-coated gloves with different wear and gripping characteristics to fit different jobs. Tell us your operation. Without cost we will recommend correct gloves and supply samples for comparison testing on-the-job.

Edmont Manufacturing Company,  
1220 Walnut Street, Coshocton, Ohio.

**Edmont**  
JOB-FITTED GLOVES



charge. A more serious project gets more expensive.

• **Authors' Fees**—Authors of company histories rarely bank on very large royalties from general sale—and their guaranteed fees can range anywhere from \$1,000 to \$25,000.

Paradoxically, a serious, scholarly work frequently is the least expensive. For instance, those done under the aegis of the universities are frequently done by a professor as a research project attached to his job—and his pay is figured on a time-basis in relation to his regular university scale.

• **Finding a Publisher**—Most companies prefer to have the book turned out by one of the better known publishers—to get the attention of reviewers, and to cast a brighter glow of prestige about the story. But few of the leading trade book houses will take a company history that doesn't have merit in its own right as a book. Standards may not be quite so rigid as usual, though. The publisher rarely expects a corporate biography to have a large popular sale. But the subject company often guarantees to buy enough copies to make the run profitable. So whatever is sold in book stores is gravy.

Failing acceptance on this level, however, the company can, and frequently does, have the book published by one of the "vanity" press publishers by paying an additional "subsidy" ranging anywhere from \$1,000 to \$5,000 above printing and distribution costs.

Though public sale of corporate biographies rarely runs much over 500 copies, companies themselves usually pick up anywhere between 2,500 and 75,000 copies. An illustrated book that would normally retail for \$5.00 will cost the company between \$2.50 and \$3, bought in quantity.

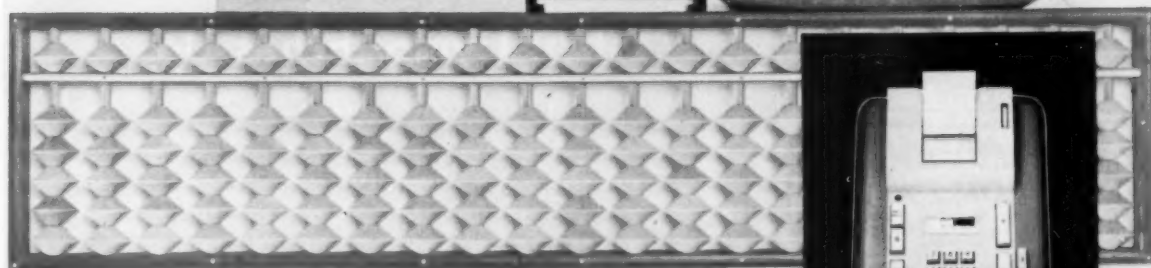
• **Pleasant Surprise**—The growing tendency to let writers do their research uninhibited by a list of do's and don'ts from the company occasionally turns up some surprises—including, most commonly, the fact that the record isn't so black as many, including knowledgeable personnel of the company, had believed.

The president of a major utility not long ago told a writer to tread lightly on the early part of the company's life, when it had been tarred as part of the ill-famed utility empire of Samuel Insull. The company was so ashamed of this ancestor that it had once moved its headquarters half way across the country to erase the memory. Only the research turned up the fact that it never had really been part of the Insull empire. The only connection had been through a relative with the same name who had invested personally in the concern and briefly served on its board. **END**

# If she worked in America, she'd want a Clary!

*(First adding machine ever to outspeed the abacus)*

Never before has an adding machine proved officially faster than the Oriental abacus, until a recent network TV show ... with an American office girl using a Clary 10-Key, competing against a Tokyo girl, who spent years mastering the abacus, and was an abacus champion of Japan. The Clary was faster on all 3 counts—addition, subtraction, multiplication. No wonder Clary is the adding machine choice of over 160,000 offices!



Her Clary is so beautiful to look at—so comfortable to operate—so restfully quiet—so incredibly fast. She's a whiz on it in *minutes*. And she has choice of 10-Key or Full Key in 5 pastel colors—blue, gray, green, beige, turquoise.

You don't have to go to Japan for a demonstration of all this. Just look in the Yellow Pages for the Clary dealer or Factory Branch Office nearest you.



**BUSINESS  
MACHINES  
DIVISION**

CLARY CORPORATION, San Gabriel, Calif.

In Canada: Clary Multiplier  
of Canada, Ltd., Toronto

# clues:

To The Solution  
of Management  
Men's Problems

**Published:** Weekly—closes 12 days  
in advance publication  
date

**Rate:** \$8.00 per line (\$4.00 per  
line for position wanted  
ads), minimum 2 lines.

**To Estimate:** Count 5 average words  
per line.

**Box Number:** Count as 2 words.

**REPLIES (Box No.):** Address to office nearest you  
c/o This publication Classified Ads. Div.  
NEW YORK: P. O. Box 12 136  
CHICAGO: 530 N. Michigan Ave. (11)  
SAN FRANCISCO: 68 Post St. (1)  
LOS ANGELES: 1125 W. 6th St. (17)

## EMPLOYMENT

### Position Vacant

**San Francisco Calling! Positions Available** for  
engineers, accountants, technicians, etc. Send  
your resume to Cole Associates, Agency, 703  
Market St., San Francisco 3, California.

### Positions Wanted

**Exclusive Representation available in South West**  
for persons seeking tax shelter and/or invest-  
ment opportunities. Highest integrity, broad  
oil industry contacts, presently VP multi-  
million dollar corporation, Harvard M.B.A. age  
31, compensation requirement: \$25000, stock  
option or percentage, heavy expenses. PW-  
4088, Business Week.

**Personnel or Sales Trainee, AB and JD degrees,**  
veteran, single, 27, relocate anywhere, resume  
available. PW-4166, Business Week.

**Good sales or sales management position wanted.**  
Broad sales experience. Good closer. Age 41.  
College. Cleveland, O. preferred. Will re-  
locate. PW-4123, Business Week.

**Top Sales Executive available; 10 yrs. sales &**  
engineering Natl. Mfg. heating & air condi-  
tioning; now Mgr. whale, htg. & air cond. org.  
PW-4124, Business Week.

**Want to Expand, Reduce Responsibilities or Sell?**  
Engineer with M.B.A. and 10 years experience  
desires position which will lead to partial or  
complete ownership. P. O. Box PW-4131, Busi-  
ness Week.

**I'm A Rare Bird . . . a top sales promotion man**  
with solid bus. bkgrnd. Want to join company  
willing to permit limited ownership. My ads,  
mag. articles often cross your desk. 35, mar-  
ried, ad exec. who understand financial reports,  
bus. systems as well as Madison Ave. hi-soil.  
Excellent sales analyst. Widely travelled,  
knowledge most industries. Top references.  
Don't care where you are. PW-4164, Business  
Week.

**Myself for sale to someone who can use me. Ex-**  
perience includes: sales work, 7 years all  
phases own mfg. bus., asst. to sales mgr. of  
med. size co., have designed and built special  
machines. Personal data: 34, married, family,  
1 yr. college, possess above integrity, mechanic  
ability, and common sense. Feel capable of  
assuming responsible position in any phase of  
business. PW-4168, Business Week.

## SELLING OPPORTUNITIES

### Selling Opportunities Wanted

**Sales Engineers—Seeking line catering to builders,**  
iron works & national concerns 100 miles of  
N.Y.C. Est. 1939. SA-4148, Business Week.

**Manufacturer's representative desires additional**  
lines. State of Florida. RA-4095, Business  
Week.

## EXECUTIVE DEVELOPMENT

**Plan your career and progress scientifically, where**  
you are or elsewhere. Whatever your current  
job, salary, or status may be, we can help you  
better them, 15th year. Write for brochure 19.  
Executive Job Counselors, 16 E. 41 St., N.Y. 17.

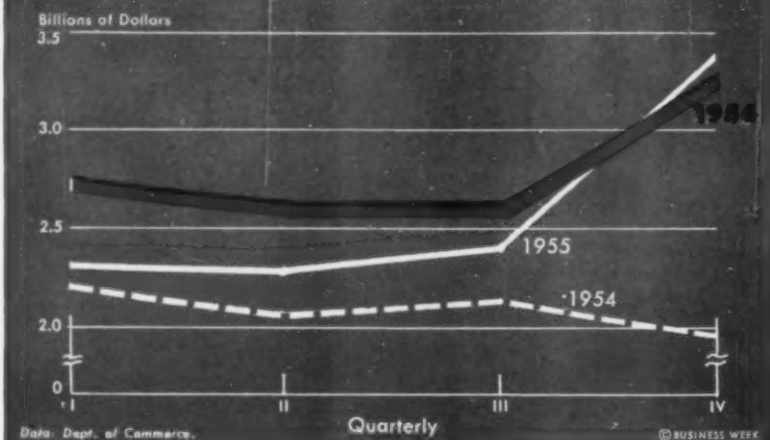
## SPECIAL SERVICES

### Registered Patent Attorney

**Patent Information Book without obligation.**  
G. Miller 27-BW1, Warner Bldg., Wash. 4, D. C.  
(Continued on page 142)

## CHARTS OF THE WEEK

### Dividend Payments Publicly Reported



### Fourth Quarter Fell Behind Last Year

Publicly reported dividend payments in December dropped 8.4% below their year-ago level, and for the fourth quarter were 3% below the corresponding period in 1955.

Dividend payments in 1956 chart a pattern of steadily declining gains over

the preceding year—due largely to 1955's increasing rate of gain over 1954. The 1956 pattern from the first to the last quarter was: +18%, +13.3%, +8.1%, and -3%. On the other hand, 1955's quarterly gains over 1954 were 4.8%, 11.1%, 13%, 18.5%.

### Cost of Living Inches Up

	Total Cost of Living	1947-49 = 100			
		Food	Clothing	Housing	Rent Only
December, 1949	101.0	97.7	97.1	104.2	107.0
December, 1955	114.7	109.5	104.7	120.8	131.1
January, 1956	114.5	109.2	104.1	120.6	131.4
February	114.5	108.8	104.6	120.7	131.5
March	114.7	109.0	104.8	120.7	131.6
April	114.9	109.6	104.8	120.8	131.7
May	115.4	110.0	104.8	120.9	132.2
June	116.2	113.2	104.8	121.4	132.5
July	117.0	114.8	105.3	121.8	133.2
August	116.9	113.1	105.5	122.2	133.2
September	117.1	113.1	106.5	122.5	133.4
October	117.7	113.1	106.8	122.8	133.4
November	117.9	112.9	107.0	123.0	133.8
Dec., 1956	118.0	112.9	107.0	123.3	134.2

Data: Dept. of Labor, Bureau of Labor Statistics.

© BUSINESS WEEK

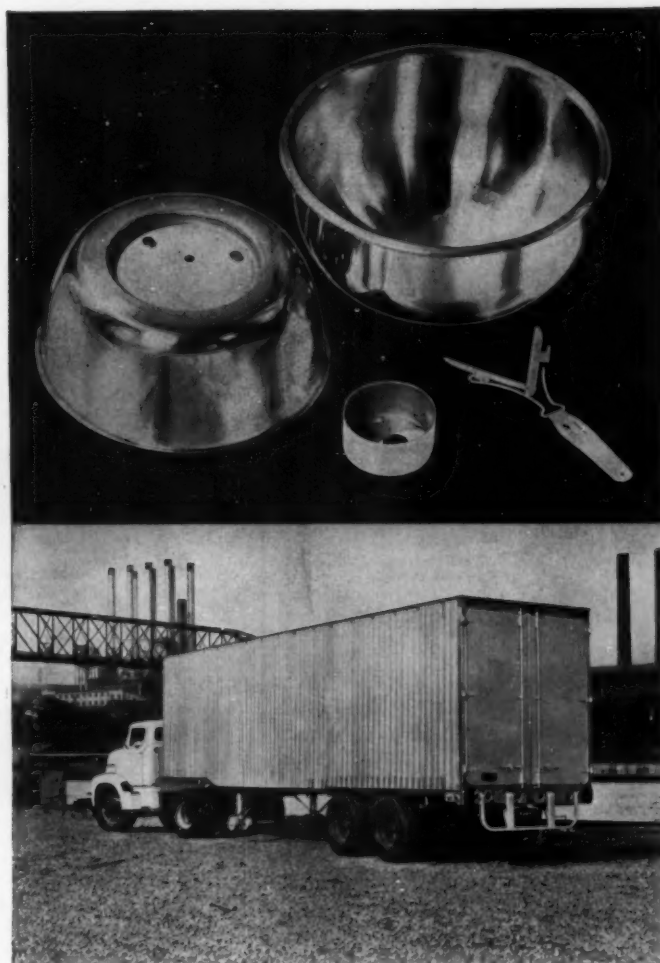
Living costs edged upward in December, 1956, to an all-time high of 118.0% of the 1947-49 average—an increase of 2.9% over December, 1955. This brought the cost-of-living index for the full year 1956 to a level 1.5% above

1955. From December, 1955, to the same month in 1956 the sharpest rise came in transportation costs—up 4.6%. This includes the price and operating cost of new and used cars, and local public transportation and railroad coach



You can draw  
and form them  
**LITTLE**

or fabricate them  
**BIG**



with the new A-L low-nickel STAINLESS GRADES

**WRITE FOR THE  
ASSISTANCE  
YOU NEED**

**1. "TECHNICAL STUDIES #3"**

... essential information on the composition, properties, fabricating methods and applications of AL chromium-manganese, low-nickel stainless steels. *Write for your copy.*

**2. TEST SAMPLES**

... We'll be glad to supply engineering assistance, and actual samples of these 200-Series steels for testing under your processes and conditions.

**ADDRESS DEPT. W-86**

In the top photograph, the fabrications you see are a mixing bowl, a tea-kettle base, a lock case and a patented shoe fastener: all made of A-L Type 201 or 202 chrome-manganese low-nickel stainless. The finish is good, the steel handled the same in the presses as Types 301 or 302, and similar drawing, buffing and polishing procedures were followed.

As in the lower illustration, the chrome-manganese low-nickel grades are being used also for fabrications as large as truck trailers and railroad coaches. Again, forming qualities and weldability present

no problems, and results are entirely satisfactory.

Sum it all up and this is the answer: you *won't* encounter any particular differences in fabricating the 200-series of stainless steels . . . you *will* find some advantage in price, and a very important factor of much greater availability in times of nickel shortage. • Why not take advantage of our pioneering experience with the low-nickel grades—let us help you use them. *Allegheny Ludlum Steel Corporation, Oliver Building, Pittsburgh 22, Pa.*

WSW 6050

For Stainless Steel in ALL Forms—call  
**Allegheny Ludlum**

Warehouse stocks carried by all Ryerson Steel plants



**REVOLVATOR GO-GETTER**  
The MOST COPIED  
LIFT TRUCK  
On The Market

EASIEST  
WALKIE-TRUCK  
TO OPERATE AND  
MAINTAIN EVER!

FINGER TIP CONTROLS, INCLUDING DYNAMIC BRAKE  
TO ELIMINATE "PLUGGING" THE MOTOR GOING  
DOWN RAMP, AND "ARTICULATED" CONSTRUCTION  
ADJUSTS TO UNEVEN  
FLOORS, STEEPS EASILY,  
AND WORKS IN LESS SPACE  
BECAUSE OF THE  
DUAL WHEELS &  
DIFFERENTIAL  
DRIVE!

HOW ABOUT  
MAINTENANCE? SNAP THE LATCH AND LIFT OFF THE  
COVERS—YOU DON'T EVEN TAKE  
THE MOTOR OUT TO GET AT THE  
BRUSHES, AND THE DISK BRAKE  
HAS A SIMPLE SCREW ADJUSTMENT

WRITE FOR OUR  
FREE TRUCK  
INDEX  
OF GO-GETTER ELEC-  
TRIC AND RED GIANT  
HAND LIFT TRUCKS

**REVOLVATOR CO.**  
8711 TOWNHILL AVE., NORTH BERGEN, N.J.

## clues: To The Solution of Management Men's Problems

REPLIES (Box No.): Address to office nearest you  
c/o This publication Classified Ad. Div.  
NEW YORK: P. O. Box 12 (36)  
CHICAGO: 220 N. Michigan Ave. (11)  
SAN FRANCISCO: 66 Post St. (4)  
LOS ANGELES: 1125 W. 6th St. (17)

(Continued from page 140)

### BUSINESS OPPORTUNITIES

Free Catalog Hundreds of Bargains on business,  
farms and income property for sale through-  
out U. S. Deal direct with owners. Write: U. S.  
Buyers Digest, 1608 Hillhurst Ave., Dept. BW6,  
Los Angeles 27, Calif.

Light Engineering Company with up-to-date plant,  
machinery and factory, including die-casting  
and plating plant completed 1957, interested in  
contacting manufacturers of small metal and  
novelties, with a view to manufacturing under  
License for sale in Great Britain and the Com-  
monwealth, and Continental markets. Com-  
plete sales organization already established.  
BO-4159, Business Week.

### PLANTS—PROPERTIES

Wanted—Good, Sound Industries that are caught  
in profits squeeze due to increased operating  
costs. Do you want to save \$1000.00 per em-  
ployee per year? Would such a savings mean  
the difference between profit and loss? Investi-  
gate the labor, tax and insurance savings avail-  
able here. Profit making plant sites on main  
highways and railroads. Write F. T. Milligan,  
President of Development Company, Jefferson,  
Iowa for detailed information.

### BUSINESSES FOR SALE

Newspaper for sale. Strong community weekly.  
Established thirty years. AD-2355 circula-  
tion. Southeastern location. Owner retiring.  
PS-4016, Business Week.

fares. Medical care—including doctors' fees, hospital and drug costs—rose 3.5% in the year. Personal care (barber and beauty shop services and toilet articles)

rose 3.3%. Food costs were up 3.1%. Housing (shelter, housefurnishings, and household operation), rose 2.2%.

## The Income Pattern: Business Week's Regional Income Indexes

### U.S. Incomes: Up 5.8% From Last Year



©BUSINESS WEEK

Federal Reserve District	% Change vs. year ago	The Indexes		
		Nov. 1956	October 1956	Nov. 1955
1. Boston	+4.8%	286.9	286.4	273.8
2. New York	+6.4%	304.3	303.0	285.9
3. Philadelphia	+5.1%	298.4	297.4	284.0
4. Cleveland	+5.6%	350.8	349.9	332.1
5. Richmond	+4.0%	363.3	362.6	349.3
6. Atlanta	+6.3%	440.7	439.6	414.5
7. Chicago	+5.6%	353.6	349.0	334.7
8. St. Louis	+3.8%	325.8	326.6	314.0
9. Minneapolis	+6.5%	344.5	342.6	323.5
10. Kansas City	+3.4%	400.2	397.6	386.9
11. Dallas	+6.9%	478.4	475.8	447.6
12. San Francisco	+8.0%	399.0	402.4	369.4
Nation	+5.8%	352.0	350.9	332.8

1941 = 100; adjusted for seasonal. November figures preliminary; October revised.

## Still Climbing, but Not So Fast

U.S. incomes continued their climb in November, 1956, mounting to a point 5.8% above the same month in 1955. But except for last July, this was the smallest year-to-year gain shown since June, 1955, in BUSINESS WEEK's Composite of Regional Income Indexes. Blue ribbon winner among regions in year-to-year gains was San Francisco, where incomes jumped 8.0%. Kansas City trailed with a 3.4% gain.

From October to November, the nation's incomes rose 0.3% to a new all-time peak. Boston, New York, Philadel-

phia, Cleveland, and Chicago all topped their October highs. San Francisco incomes, however, slipped 0.8% from the October peak. St. Louis was the only other region showing a decline.

Top spot in the month-to-month gains was taken by Chicago, where incomes were up 1.3% from October. Some of the increase can be traced to gains in auto plant employment. There were also employment gains in the higher-paid transportation equipment lines, and in nonelectrical machinery—mainly farm machinery and tractors.

# ADVERTISERS IN THIS ISSUE

Index for Business Week February 2, 1957 Issue

ALLEGHENY LUDLUM STEEL CORP. .... 141  
Agency—W. E. Walker Adv., Inc.

R. C. ALLEN BUSINESS MACHINES, INC. .... 129  
Agency—Wesley Aves & Assoc.

ALL-STEEL EQUIPMENT, INC. .... 54  
Agency—E. R. Hollingsworth & Assoc.

ALL-YEAR CLUB OF SOUTHERN CALIFORNIA ..... 70  
Agency—Foots, Cone & Beiding

AMERICAN APPRAISAL CO. .... 78  
Agency—The Buchen Co.

AMERICAN CREDIT INDEMNITY CO. .... 18  
Agency—VanSant, Dugdale & Co., Inc.

AMERICAN TELEPHONE & TELEGRAPH CO. .... 89  
Agency—Cunningham & Walsh, Inc.

AMERICAN TELEPHONE & TELEGRAPH CO. .... 37  
Agency—N. W. Ayer & Son, Inc.

ARIZONA DEVELOPMENT BOARD ..... 63  
Agency—Jennings & Thompson Adv., Inc.

ARMCO DRAINAGE & METAL PRODUCTS, INC. .... 105  
Agency—N. W. Ayer & Son, Inc.

THE "AUTOMATIC" SPRINKLER CORP. .... 18  
Agency—G. M. Basford Co.

BEAVER PIPE TOOLS, INC. .... 94  
Agency—Meek & Thomas, Inc.

DEMIS BRO. BAG CO. .... 76  
Agency—Gardner Adv. Co.

BITUMINOUS COAL INSTITUTE ..... 135  
Agency—VanSant, Dugdale & Co., Inc.

BREUER ELECTRIC MFG. CO. .... 134  
Agency—Grimm & Craigie

BRISTOL BRASS CORP. .... 79  
Agency—Sutherland-Abbott

BUSINESS WEEK ..... 121

BUTLER MFG. CO. .... 77  
Agency—Aubrey, Finlay, Marley & Hodgson, Inc.

THE CHASE MANHATTAN BANK ..... 102  
Agency—Kenyon & Eckhardt, Inc.

CHESAPEAKE & OHIO RAILWAY CO. .... 12-13  
Agency—Robert Conahay, Inc.

CLARY CORP. .... 139  
Agency—Erwin, Wasey & Co., Ltd.

CLUES (CLASSIFIED ADVERTISING) ..... 140, 142

COPPER & BRASS RESEARCH ASSN. .... 99  
Agency—J. M. Hickerson, Inc.

COPPERWELD STEEL CO. .... 40  
Agency—The Bayless-Kerr Co.

CUSHMAN & DENISON MFG. CO. .... 98  
Agency—The House of J. J. Hayden Twiss Adv.

DANA CORP. .... 131  
Agency—Clifford A. Kroening, Inc.

C. H. DEXTER & SONS, INC. .... 60  
Agency—Wm. B. Remington, Inc.

DIAMOND POWER SPECIALTY CORP. .... 86  
Agency—Witte & Burden

DOW CORNING CORP. .... 115  
Agency—Church & Gulsevite Adv., Inc.

ECONOMY ENGINEERING CO. .... 98  
Agency—Kreider & Meloon, Inc.

EDMONT MFG. CO. .... 138  
Agency—Maurice Mullay, Inc.

ENJAY CO., INC. .... 74  
Agency—McCann-Erickson, Inc.

EQUITABLE LIFE ASSURANCE SOCIETY OF U. S. .... 6-7  
Agency—Kenyon & Eckhardt, Inc.

BERNHARD FABER PENCIL CO. .... 24  
Agency—Anderson & Cairns, Inc.

THE FAFNIR BEARING CO. .... 81  
Agency—Noyes & Co.

FAIRCHILD ENGINE & AIRPLANE CORP. .... 95  
Agency—Gaynor, Colman, Prentiss & Varley, Inc.

FIRST NATIONAL CITY BANK OF NEW YORK ..... 71  
Agency—Batten, Barton, Durstine & Osborn, Inc.

FORD INSTRUMENT CO., DIV. OF SPERRY RAND CORP. .... 124  
Agency—G. M. Basford Co.

FORD MOTOR CO. .... 72-73  
Agency—J. Walter Thompson Co.

GAR WOOD INDUSTRIES ..... 93  
Agency—Meldrum & Fawcett, Inc.

GENAR ASSOCIATES ..... 94  
Agency—Troland, Inc.

GENERAL TIRE & RUBBER CO. .... 92  
Agency—D'Arcy Adv. Co.

THE GLIDDEN CO. .... 10  
Agency—Meldrum & Fawcett, Inc.

B. F. GOODRICH INDUSTRIAL PRODUCTS CO. .... 3  
Agency—The Griswold-Ehlersman Co.

GOODYEAR TIRE & RUBBER CO., INC. (CHEMICAL DIV.) ..... 21  
Agency—Kudner Agency, Inc.

GRAYBAR ELECTRIC CO. .... 82  
Agency—G. M. Basford Co.

GUSTIN-BACON MFG. CO. .... 52  
Agency—Valentine-Radford

HARNISCHFEGGER CORP. .... 43  
Agency—Hoffman & York, Inc.

THE E. F. HAUSERMAN CO. .... 60  
Agency—Meldrum & Fawcett, Inc.

HEATING & AIR CONDITIONING EXPOSITION ..... 130  
Agency—O. S. Tyson & Co., Inc.

THE HEYER CORP. .... 48  
Agency—Frank C. Jacob

HYDROWAY SCALES, INC. .... 63  
Agency—Hales & Merchandising Consultants

ILLINOIS TOOL WORKS ..... 4th Cover  
Agency—Waldie & Briggs, Inc.

INTERNATIONAL HARVESTER CO. .... 57  
Agency—Aubrey, Finlay, Marley & Hodgson, Inc.

INTERNATIONAL NICKEL CO., INC. .... 133  
Agency—Marchak & Pratt Co., Inc.

JEFFREY MFG. CO. .... 8-9  
Agency—The Griswold-Ehlersman Co.

JENNISON WRIGHT CORP. .... 132  
Agency—Phillips-Thackeray

JOHNSON & HIGGINS ..... 62  
Agency—Doremus & Co.

JONES & LAMSON MACHINE CO. .... 39  
Agency—Henry A. London Adv., Inc.

KOPPERS CO., INC. (WOOD PRESERVING DIV.) ..... 84  
Agency—Smith, Taylor & Jenkins, Inc.

MARKEM MACHINE CO. .... 65  
Agency—Culver Adv., Inc.

METROPOLITAN LIFE INS. CO. .... 89  
Agency—Young & Rubicam, Inc.

NATIONAL CASH REGISTER CO. .... 2nd Cover  
Agency—McCann-Erickson, Inc.

NATIONAL TOOL & DIE MFGS. ASSN. .... 30  
Agency—Fred Wittner Adv.

NEW DEPARTURE DIV. GENERAL MOTORS CORP. .... 138  
Agency—D. F. Brother & Co.

OHIO CHAIR CO. .... 94  
Agency—R. J. McCallister Co.

THE OSBORN MFG. CO. .... 14  
Agency—The Griswold-Ehlersman Co.

PARADE PUBLICATION, INC. .... 4  
Agency—Calkins & Holden, Inc.

PARSONS PAPER CO. .... 58  
Agency—Gibney & Barreca

PERKIN-ELMER CORP. .... 53  
Agency—G. M. Basford Co.

RADIO CORP. OF AMERICA (COMM. ELECTRONIC PRODS.) ..... 119  
Agency—Al Paul Lefson, Inc.

RAILWAY EXPRESS AGENCY ..... 17  
Agency—Benton & Bowles, Inc.

THE RAMO-WOOLDRIDGE CORP. .... 108  
Agency—The McCarty Co.

RAYBESTOS-MANHATTAN, INC. .... 118  
Agency—Gray & Rogers

READING RAILROAD ..... 112  
Agency—Richard A. Foley Adv. Agency, Inc.

RECORDAK CORP. (SUB. OF EASTMAN KODAK) ..... 111  
Agency—J. Walter Thompson Co.

REICHHOLD CHEMICALS, INC. .... 83  
Agency—MacMannus, John & Adams, Inc.

REMINGTON RAND, DIV. OF SPERRY RAND CORP. .... 11  
Agency—Paris & Peart, Inc.

REVOLVATOR CO. .... 142  
Agency—Fredricks & Co., Inc.

RHODE ISLAND DEV. COUNCIL ..... 98  
Agency—Bo Bernatista & Co., Inc.

ROYAL-McBEE CORP. .... 83  
Agency—C. J. LaRoche & Co., Inc.

RUST-OLEUM CORP. .... 63  
Agency—O'Grady-Anderson-Gray, Inc.

ST. REGIS PAPER CO. .... 122-123  
Agency—Cunningham & Walsh, Inc.

SHERATON CORP. OF AMERICA ..... 62  
Agency—Batten, Barton, Durstine & Osborn, Inc.

SINCLAIR OIL CORP. .... 35  
Agency—Doremus & Co.

SNAP-ON TOOL CORP. .... 136  
Agency—Bert S. Gittins Adv., Inc.

STANDARD PRESSED STEEL CO. .... 114  
Agency—Gray & Rogers

STUDEBAKER-PACKARD CORP. .... 100  
Agency—Benton & Bowles, Inc.

SYNTHANE CORP. .... 87  
Agency—Arndt, Prostus, Chapin, Lamb & Keen, Inc.

TAYLOR INSTRUMENT CO. .... 61  
Agency—Batten, Barton, Durstine & Osborn, Inc.

THE TEXAS CO. .... 18  
Agency—G. M. Basford Co.

THE TORRINGTON CO. .... 40  
Agency—Hazard Adv. Co.

THE TRANE CO. .... 44-45  
Agency—Campbell-Mithun, Inc.

TRANS WORLD AIRLINES, INC. .... 83  
Agency—Foots, Cone & Beiding

UNION BAG-CAMP PAPER CORP. .... 160  
Agency—Smith, Hagel & Knudsen, Inc.

U. S. PLYWOOD CORP. .... 138  
Agency—Kenyon & Eckhardt, Inc.

U. S. RUBBER CO. .... 127  
Agency—Fletcher D. Richards, Inc.

U. S. STEEL CORP. .... 22-23  
Agency—Batten, Barton, Durstine & Osborn, Inc.

THE UPSON CO. .... 116  
Agency—Zimmer, Keller & Calvert, Inc.

VIKING PUMP CO. .... 84  
Agency—J. M. Hickerson, Inc.

VULCAN RUBBER PRODUCTS, INC. .... 137  
Agency—Gotham-Vladimir Adv., Inc.

WAGNER ELECTRIC CORP. .... 129  
Agency—Arthur R. Mogge, Inc.

WISCONSIN UTILITIES ..... 3rd Cover  
Agency—The Cramer-Kraus Co.

## ADVERTISING SALES STAFF

Midwestern Advertising Sales Manager  
John P. Taylor—Chicago

Atlanta 3... Douglas C. Billiam, 601 Rhodes-Haverty Bldg., Walnut 5778

Boston 16... Kent Hanger, 250 Park Square Bldg., Hubbard 2-7150

Chicago 11... John F. Boomer, Herbert M. Higgins, James E. McHane, Robert Eldur, 135 N. Michigan Ave., Mohawk 4-5800

Cleveland 18... William C. Bradford, John G. Cahlin, 1510 Hanna Bldg., Superior 1-7000

Dallas 2... Gordon L. Jones, Adolphus Tower Bldg., Main & Akard Sts., Prospect 7-5054

Detroit 28... Richard J. McGure, G. C. Randolph, 858 Penobscot Bldg., Woodward 2-1750

Los Angeles 17... Alfred L. Blumling, 1125 West 34th St., Madison 4-6351

New York 36... Harold E. Choate, John H. Glorv, G. Robert Griswold, John F. Juraszek, A. T. Ortle, John H. Stevenson, 340 W. 42nd St., Longacre 4-5000

Philadelphia 9... R. Bernard Alexander, David R. Conner, T. B. Robertson, Architects Bldg., 17th & Sansom Sts., Rittenhouse 6-0870

Pittsburgh 22... John B. Thomas, 919 Oliver Bldg., Atlantic 1-6707

St. Louis 8... James H. Cash, Continental Bldg., 2615 Olive St., Jefferson 5-4897

San Francisco 4... John W. Ottersen, 68 Post St., Douglas 2-4000

England... Herbert Legler, McGraw-Hill Co., Ltd., 45 Farringdon St., London, E. C. 4



# What We Don't Know About Money

The past week or so has seen fresh indications of growing concern about the inadequacy of monetary management to deal with the problem of economic stability.

The President's Economic Report, for example, states, "To depend exclusively on monetary and fiscal restraints as a means of containing the upward movement of prices would raise serious obstacles to the maintenance of economic growth and stability." It goes on to observe that moderate restraint is not sufficient to keep prices in check, while severe restraint might threaten the entire economy.

A similar concern is shown by officials of the Federal Reserve itself. William McC. Martin, chairman of the Board of Governors, declared last week that the Fed finds it difficult to cope with the problem of inflation, and he asked that more attention be given to means of keeping the dollar from depreciating.

In another speech, Alfred Hayes, president of New York's Fed, stated that a danger in the current situation is that "too much faith may be placed in monetary policy to deal with all economic difficulties, which of course it cannot do singlehanded."

These statements, in different ways, all question the role of monetary policy in maintaining stability. The passage in the Economic Report has been interpreted by some as a definite slap at the Fed's current policy. This is highly questionable, and arguing over whether such an interpretation is valid only obscures the Administration's view that monetary policy cannot do the whole job of keeping the economy on an even keel.

We think that this is an important observation. The performance of the Fed to date does not suggest that the money managers are infallible. As Hayes stressed, it is not the Fed, but its supporters, who are fostering this illusion.

This does not mean that monetary management is not an important weapon. It is. But although great reliance has been placed on it, the prosperous stability of the last four years is not due to it alone. The fact that responsible officials are now questioning its adequacy should make clear that it is not a perfect weapon.

## Technical Trouble

At the same time that concern about monetary policy is being voiced on a theoretical level, a technical problem was pointed up in the announcement of the American Bankers Assn.'s plan for a wholesale reduction in reserve requirements. Although ABA supports the Fed's restrictive policy, it points out that the banking system will need vastly increased reserves to meet the credit demands of a

growing economy. It recommends a broad reduction in reserve requirements over the next five years, as well as other changes to eliminate what it considers obsolete and inequitable regulations.

It is apparent that reductions in reserve requirements must be made if the banking system is to contribute to economic growth, but it is doubtful whether ABA's program for committing the Fed to specific reductions over a specific time period is the best possible plan. Far from strengthening the already inadequate powers of the Fed, it might impair its flexibility and weaken its control.

But like the Economic Report and the speeches of Hayes and Martin, the ABA program points up the fact that we do not know enough about monetary management. We need more information and study of a non-partisan nature.

Pres. Eisenhower has already urged the establishment of a National Monetary & Fiscal Commission, staffed by private citizens, to better our understanding of this field. These latest developments emphasize the need for Congress to appoint the commission to get on the job of finding out what we don't know.

## Sentimental Token

There is something rather charming about a little announcement issued last week by Her Majesty's Treasury on behalf of the Royal Mint. The Mint is concerned because its craftsmen are in danger of losing the knack of making gold coins. To help them keep their hands in, it will undertake a limited run of gold sovereigns "with the Queen's effigy on the obverse and the George and Dragon with the date 1957 on the reverse." As soon as they are minted, the coins will be locked up in the nation's gold reserves. For Britain, like practically every other nation in the world today, does not allow gold to circulate.

It's comforting to know that the ancient art of minting gold coins will not be allowed to die out. And it seems a pity that something similar can't be done to keep the ancient art of gold standard theorizing alive. The special training that enabled the gold standard economists to make an angel host of theories dance on a pinhead of fact was in every way as difficult and exacting as an apprenticeship in actual coin-making, and the theorists today are in greater danger of extinction than the artisans.

Perhaps the U.S. could do its part by commissioning a limited run of gold standard theories, with the effigy of Alexander Hamilton on the obverse and the Federal Reserve rampant on the reverse. The results, of course, to be promptly locked up in the vaults of the Library of Congress.



Norman  
Rockwell

your company.  
your family  
and you,  
will...

## BE HAPPY IN WISCONSIN!

Wisconsin offers in abundance the basic factors a business needs to grow and prosper. Specifically—

You'll be in the heart of one of the richest markets, served well by 17 railroads, 8 major airlines, 192 truck lines, plus direct water transportation to the markets of the whole wide world.

You'll enjoy year-round, temperate climate. Temperatures are moderate in summer and stimulating in winter. Statistics show Wisconsin's climate promotes good health.

Wisconsin is officially rated the third-healthiest of all the states.

Good water abounds throughout the state. Ten thousand lakes and streams, including Lake Michigan and Lake Superior, provide it, along with limitless pleasure.

Living conditions, native skills, educational, cultural and recreational facilities, general prosperity, home ownership, law observance, good citizenship, good government—all are exceptional in Wisconsin. These are facts, backed by records.

You'll agree that here, in fullest measure, are essential basic materials of commercial and individual well-being.

*"The people of Wisconsin extend a most hearty welcome to you and to your business."*

—Vernon W. Thomson  
GOVERNOR

For further data, write to the Wisconsin Division of Industrial Development, Office of the Governor, Madison, Wisconsin.

Another Wisconsin asset,  
vital to Industry and Home—

plenty of  
**natural GAS**  
at low rates

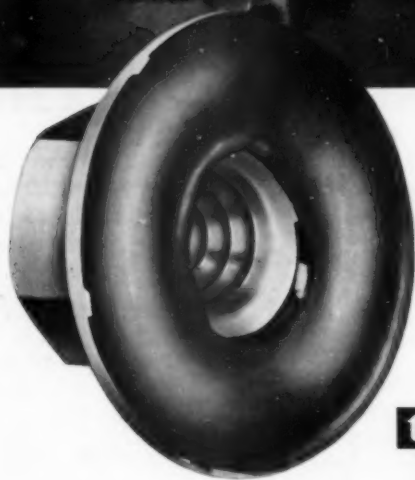


available from:

MADISON GAS AND ELECTRIC CO. • MILWAUKEE GAS LIGHT CO.  
NATURAL GAS DISTRIBUTORS, INC. • STOUGHTON LIGHT & FUEL CO.  
WISCONSIN FUEL AND LIGHT CO. • WISCONSIN MICHIGAN POWER CO.  
WISCONSIN NATURAL GAS CO. • WISCONSIN POWER AND LIGHT CO.  
WISCONSIN PUBLIC SERVICE CORP.

## SHAKEPROOF® Sealing Keps®

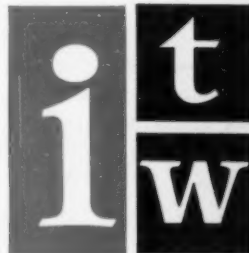
new weathertight fastener  
helps keep you dry as you drive!



Shakeproof development engineers pre-assembled  
a nut, dished lock washer and mastic seal  
into one vibration-proof, waterproof fastener.

Produced in volume, SHAKEPROOF fasteners  
provide a new practical approach to  
mass-assembly quality and cost reduction.

**i** ingenuity  
**t** that  
**w** works



### DIVISIONS OF ILLINOIS TOOL WORKS:

SHAKEPROOF DIVISION, Fastening Headquarters • FASTEX DIVISION, Plastic and Metal Components • ILLINITE DIVISION, Metal Cutting Tools • MACHINE AND INSTRUMENT DIVISION, Measuring Machines • SPIROID DIVISION, Modern Gears • LICON DIVISION, Precision Electrical Switches

# ILLINOIS TOOL WORKS

CHICAGO • ELGIN • DES PLAINES • TORONTO